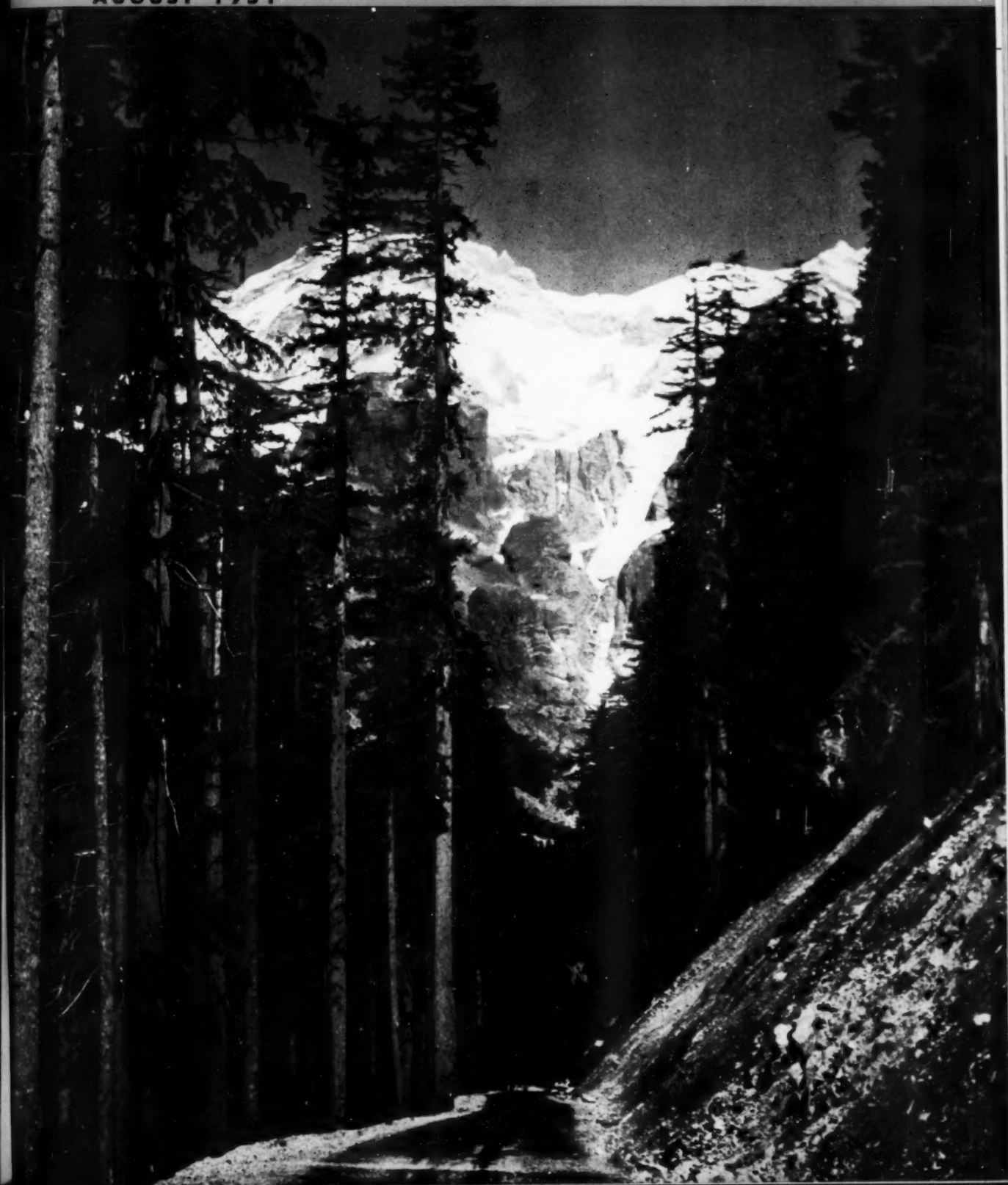


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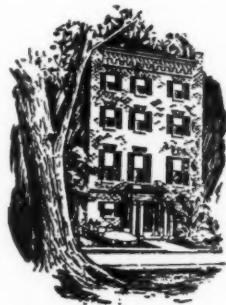
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The American Forestry Association, publishers of *American Forests*, is a national organization— independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

# American FORESTS

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

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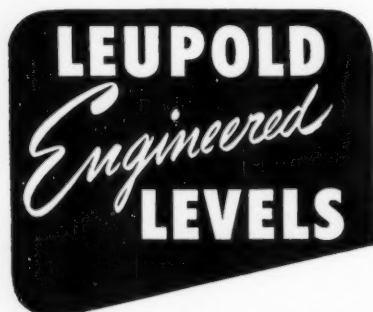
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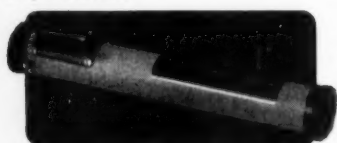
Seen even through a camera lens, the snow-capped peaks of Mt. Rainier National Park in Washington State are like a cooling breeze to those who must spend a sweltering August in the confines of a city office. This cover photo by O. A. Nelson gives us a glimpse of forests known for the beauty of their conifers. Determined primarily by altitude, species to 3000 feet include western hemlock, Douglasfir, and western redcedar — to 4500 feet the amabilis fir, noble fir, Alaska cedar and western white pine prevail. Weather-beaten mountain hemlock, alpine fir and white bark pine can be found at 7000 feet.



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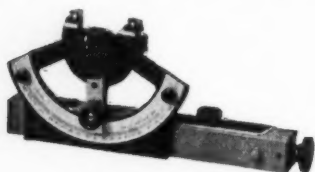


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# American FORESTS Forum

**In This Issue**—Long a seething controversy, the Pacific Northwest's O & C lands once again have erupted into a major conflict. What has turned this stretch of prime forest land into a virtual battleground is explained by **John B. Woods** in *Those Recent Moves on the Oregon Check-board* (page 6). An internationally-known forester and director of The American Forestry Association's original Forest Resource Appraisal, the author makes an objective analysis of a complex and often-misunderstood problem. He reviews the factors that have contributed to the quarrel, evaluates the divergent views and discusses moves that could lead to a settlement.

**In Tree Farms' 10th Anniversary** (page 12) **Col. William B. Greeley** traces the amazing growth of the American Tree Farm System from a single experiment in Montesano, Washington, in 1941 to a vast network of 3109 farms in 29 states today. Col. Greeley, vice-president of the West Coast Lumbermen's Association and author of the much-discussed book *Forests and Men*, and other pioneers in the movement recently gathered at Montesano to dedicate a plaque and attend tenth anniversary ceremonies. His account of the still-spreading practice places particular emphasis on the proven benefits of planned forest management.

**Harry Botsford**, a frequent contributor to leading "slick" magazines, introduces a fabulous character in *Man on the Moose* (page 18), an expertly written piece of fiction. His K. V. Butternitt is a delightful old gentleman who is the central figure in some very amusing situations.

**William Curtis**, writing from Napa, California, gives the lowdown on one of nature's strangest animals in *Quill Pigs, Nature's Pincushion* (page 16), an informative article on the porcupine. He dispels many of the myths attached to "Porky" and gives an interesting account of his behavior pattern.

Secretary of Agriculture Brannan's Memorandum 1278 is given further scrutiny in *Conservation by Decree* (page 23). Written by **John F. Preston**, retired since 1946 as SCS forestry chief and a veteran of 18

years with USFS, the article is in reply to another on the subject in the July issue of AMERICAN FORESTS.

*The Invincible Skypilot* (page 28) is about a hardy little flower that thrives at a higher elevation than any other in North America. **Philip Ferry**, a nature enthusiast from San Francisco, California, is the author.

How to escape the torments of the "big itch" is revealed by **Ted Bentz** in *Nature's Poison Foliage* (page 21). An outdoor writer from Marquette, Michigan, Bentz describes the more common types of poison foliage, tells where they are most likely to be encountered and gives some tips on proper treatment. Another helpful hint on better outdoor living is offered by **Mrs. Bessie D. Eberting**, Yakima, Washington, in *Dutch Oven Cooking* (page 11).

The answer to a problem bothering many tree owners is provided by **J. P. McWilliams**, *American Forests* technical adviser in *Rain From Your Shade Trees* (page 15). Blaming insects, not the weatherman, for the sticky solution that drips from many varieties of shade trees during the summer, McWilliams tells how to frustrate the bug attacks and preserve the utility of the tree.

In the lighter vein is *Davy and the Terror Trees* (page 26). This is the eighth article in a series by **James Stevens**. There's also Part V of the Association's *Report on American Big Trees* (page 22), and for up-to-the-minute news on legislative activities there's **G. H. Collingwood's** *Washington Lookout* (page 4).

**Looking Ahead**—Of special interest in the forthcoming September issue will be **Eugene F. Grenaker's** article on the naval stores industry. As editor of the monthly publication of The American Turpentine Farmers Association, Grenaker is an authority on this vital Southern industry. Also there will be *The Flying Forester*, an expertly written article by **David Perlman**, well known author. *Forestry's Plymouth Rock* by **O. A. Fitzgerald**, University of Idaho public relations director, will tell of a new monument to the West's forestry pioneers.

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## WASHINGTON LOOKOUT

By G. H. COLLINGWOOD

July 1 and the new fiscal year arrived in the midst of Washington's humid heat, and without the enactment of the regular appropriation bills. In anticipation of this emergency, legislation had been passed permitting the wheels of government to continue to grind, to pay salaries and to permit continuation of established activities by the several departmental agencies.

But no administrator would risk the ire of Congress to embark on new activities, or, pending final action, even to continue those for which the House had recommended curtailment. A case in point is the Interior Department's appropriation bill. This had been approved by the House, and the hearings before the subcommittee under the chairmanship of Senator Carl Hayden, of Arizona had been printed, but release of the report by the Senate Appropriations Committee was still pending. No date had been announced for its consideration on the floor of the Senate. Agriculture's bill is another example. This was far behind and hearings were only started as the old fiscal year passed out.

The House had cut \$1,000,000 from the Bureau of Land Management's budget estimate for the construction of access roads to stands of timber in the revested Oregon and California grant lands. The committee had expressed itself as having been willing in previous years to provide funds with which to initiate an access roads program, on the assumption that legislation relating to the distribution of receipts from the sale of timber would be modified.

As explained in the committee report:

*"The existing law provides for an inordinate proportion of the receipts from such timber sales to be distributed to counties in Oregon. The federal government cannot be expected to invest in capital improvements, even for such valuable resources, when the financial proceeds of harvesting these resources accrue in excessive proportion to a small number of counties rather than to the federal treasury. The committee will be unwilling to provide for capital expenditures of this nature unless and until substantial adjustments are made regarding the distribution of receipts of timber sales from the O and C and Coos Bay grant lands."*

Efforts to justify the reinstatement of the road building funds resulted in

questions and carefully worded statements from Chairman Carl Hayden of Arizona, and Senator Guy Cordon of Oregon, together with replies from Director Marion Clawson which brought out the history of the O and C lands, and a record of recent timber sales.

Senator Cordon reminded the committee of the original federal grant to the Oregon-California Railroad Company to assist in the construction of a railroad from a point in California to Portland, Oregon to connect with a transcontinental railroad. The grant included every odd-numbered section for twenty miles on each side of the railroad. But the company failed to comply with the terms of the grant and after a long period of litigation, title to the unsold grant lands was revested in the federal government.

This satisfied the requirements of the federal government but heavily reduced the tax rolls upon which had been based many of the economies of the State of Oregon and the several counties. Efforts to correct this have continued to the present time. Under the Chamberlain-Ferris Act of 1916, the Oregon and California land-grant fund was established in the federal treasury. To this, as explained by Senator Cordon:

*"Was charged all payments made by the government on account of the act, including any balance found due to the railroad company and all payments on account of accrued taxes; all proceeds from the sales of the revested lands and the timber thereon were to be credited to the fund and when credits equalled charges, all additional receipts were to be disposed of as follows: 50 percent to be paid to the state and counties in lieu of taxes; 40 percent to be paid to the reclamation fund, and 10 percent converted into the general fund of the treasury."*

The act was amended in 1926 and again in 1937, when provision was made for sustained yield management of the lands, including management in cooperation with intermingled privately owned lands. This act continued the provision of the original Revestment Act with respect to payment of one-half of the proceeds to local government in lieu of taxes, with the exception that the payments were to be made to the counties instead of being divided between the counties and the state.

Senator Cordon pointed out that

this change was made to accommodate the act to the local tax laws of Oregon. It differed from the earlier act, however, by providing for payment of the costs of administration of the lands from 25 percent, or less, of the timber sale receipts. The remaining 25 percent of receipts was to be credited against the still-existing deficit in the Oregon and California land grant fund. This brought about a situation which Senator Cordon described as:

*"At the instance of the counties, and with the concurrence of the Interior Department, a provision was included that the 25 percent, after the extinguishment of the debt, should go to the counties. The counties were fearful that otherwise their tax claims might not be met. Events proved that the 50 percent was adequate for all those purposes. The last dollar in the deficit in the federal treasury has now been met or will be met within the next 30 days, and the total outlay of the government will be extinguished, payment to the counties for taxes, the payment to the railroad company of \$2.50 an acre, and so on—and the lands themselves have paid for their own administration. The average appropriation since 1938 out of the 25 percent of the proceeds has been less than 7 percent leaving some 18 percent net going into the treasury, under the present situation. Now that it has been determined that the 50 percent will equal and it may at times exceed the actual taxes that would have been levied against the lands, the counties themselves have agreed that the 25 percent to which they had the residual right under existing law, shall now be returned to the treasury. They still seek only the full integrity of their area on a tax basis."*

The bill referred to is S. 1385, which Senator Cordon introduced on April 25, and now awaits action by the Senate Committee on Interstate and Foreign Affairs. On May 8, Representative Harris Ellsworth, of Oregon, introduced H. R. 4005 as a companion bill. Each would amend the Act of August 28, 1937, so that:

*"When the general fund in the Treasury has been reimbursed for the expenditures which were made charges against the Oregon and California land-grant funds, said 25 per centum shall be converted annually, on or after June 30, into the treasury as miscellaneous receipts."*

**More directly in support of** access roads with which to open up government stands of timber, Director Clawson pointed out that nearly three-fourths of the timber now standing in the State of Oregon is under the jurisdiction of the Bureau of Land Management, the Forest Service, and other federal agencies. With a little more than one-fourth of the timber in private ownership, the proportion of the cut is just reversed. Three-fourths of the cut is coming off private land and one-fourth of it off the public land. Moreover, as far as the lands administered by the Bu-

reau of Land Management are concerned, he said, "we are not cutting up to the land limit, as it stands. We need to get up that cut. We are going to have to have access roads, and we are going to have to have more personnel to make and supervise timber sales and do all of the inventory work and planning."

Responding to a comment by Senator Hayden that present prices should give the government considerable profit from its timber sales, Director Clawson replied that the O and C receipts for the current fiscal year would be somewhere around \$7,500,000, and those from other forest lands administered by the bureau would be over \$1,000,000. He added, "a considerable part of those revenues are paid back to the counties in lieu of taxes, but the whole operation is profitable to the federal government, and, more important, it is basic to the employment economy of those areas, and of the nation as a whole."

**A new cooperative program** to correct the damaging effects resulting from strip mining is proposed in H. R. 2708 which has been with the House Committee on Agriculture since February 15, when it was introduced by Representative Brooks Hays, of Arkansas. On the basis of laws now on the books of a half-dozen or more states, the Secretary of Agriculture would be authorized and directed to cooperate for the restoration of lands injured by strip-mining operations. The federal cooperation would depend upon the results of an investigation to determine whether the state law provides what the Secretary believes to be an adequate system for the restoration of the lands.

Inclusion of a section authorizing appropriation of sums necessary to carry out the provisions of the bill may explain why the bill is dormant with the committee. Should the interest which has been expressed by members and officers of several conservation associations take more definite form, the committee may possibly arrange hearings during the second session of the present Congress.

## Forum

(From page 2)

gram is given prominent mention in the August issue of *Esquire* magazine. In a feature article, *Vacation Now*, the 18-year-old Association service is recommended as ideal for your vacation.

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## Those Recent Moves

# On the Oregon Checkerboard

The volatile O & C lands again have erupted over the government's policy on selling timber to private operators

**V**ISION for the moment two chess players intent on schemes and gambits to gain a checkmate, then for good measure toss in all the noisy clamor of a gang of youngsters engaged in a heated marble game. There you have two basic elements attending the most recent flare-up over Oregon's seldom peaceful O & C Lands. Varied aspects have been recorded by the press on front page and in editorial since early May, government news releases supplying frequent ammunition for the fray.

This provocative O & C property, known officially as the Revested Oregon & California Railroad and Reconveyed Coos Bay Wagon Road Grant Lands, stretches in a long checkerboard pattern to the extent of some two and a half million acres from the California boundary almost to the Columbia River.

A one-time railroad grant, it was returned from private to public ownership in 1916, after long litigation involving misuse. These alternate sections and fractions of sections, created by piecemeal disposal during private control, have periodically been the subject of violent disagreement among public administrative agencies, county, state and federal law-makers and many tax-paying and non-tax-paying individuals. No comparable piece of ground anywhere has caused so much argument and dissension.

The otherwise uninformed reader of the press may have assumed a sort of "holy war" is in progress between a few larger lumber operators and a larger number of small or "independent" sawmill men and loggers over the purchase of this O & C timber for

By JOHN B. WOODS

Semi-retired, the author is a forester of more than 35 years' experience and is internationally known for his sound and independent appraisals of forest situations. An Oregonian, he has been a keen observer of the local controversy, having also interpreted it for *American Forests* readers in 1940.

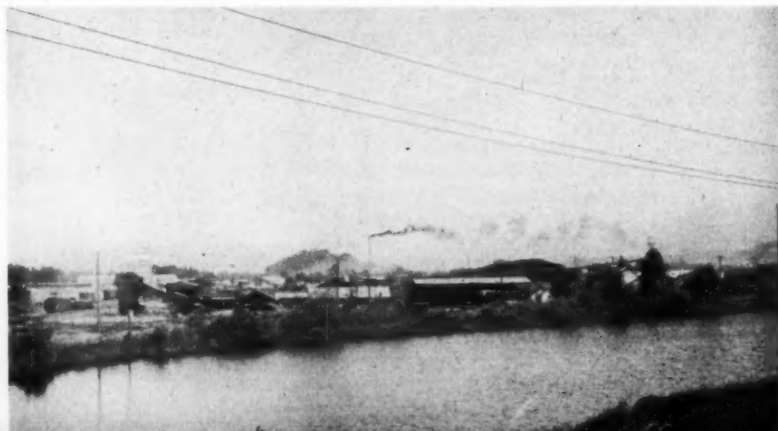
manufacture. One news story stated that prior to 1948 the government's sale policy favored the big operators, adding that it is now widely feared a return to that old policy is imminent. What the article did not state was the fact that during the war years ceiling prices effectively curbed bidding for such timber, and the small operators were not offering much competition.

Prominent in the picture is a squabble between the Interior Department's Bureau of Land Management (the local federal agency in-

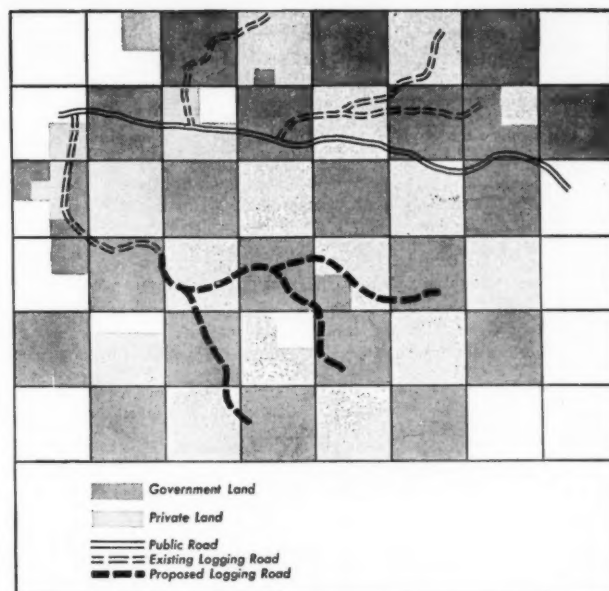
volved) and certain purchasers of O & C timber who own considerable additional areas of land in fee simple. It is across these key holdings the government frequently requires rights-of-way for movement of timber sold to other operators. At first the Bureau's requirements were on the stringent side, but after 10 years of bickering and compromise a workable basis has been reached. The right-of-way problem has been magnified by reason of its relationship to the much broader problem of long term agreements with private owners for joint management of intermingled federal and private forest lands, of which more later.

An interesting feature of this ruckus is its political aspects. In *The Washington (D. C.) Post* of May 18, 1951, an editorial discussed the O & C Lands controversy under the heading "Forest Rights," suggesting that deals may be in the making to transfer the Forest Service, now in the Department of Agriculture, to the Interior Department, or even to place all forest supervisory agencies in a new Department of Natural Resources. Such proposals have been common for several years, and their

Burners at this small mill near Eugene, Oregon, indicate full utilization is not yet in effect on all the O & C properties







mention in the *Post* was regarded out west as a "backfire" set against a threat to turn O & C Lands over to the Forest Service to administer on the same basis as its near-by National Forests. Certainly many Oregonians concede the reasonableness of a change, but for various and apparent reasons such a transfer is unlikely, at least for the present.

The writer of the *Post* editorial, supposedly sitting 3,000 miles from the nearest Oregon section corner, offered his opinion that efficient utilization through competition is the only real way to bring about forest conservation, and therefore an unmistakable reaffirmation of the present policy by the Department of the Interior is now required. In due time the Washington director of the Bureau of Land Management replied to this outburst, chiding the paper for certain misleading statements, but reaffirming—as the editorial asked—the policy of equal accessibility of federally owned timber to all bidders in the area.

Fuel was added to the furore early in May by the resignation of Daniel L. Goldy, regional director for the Bureau of Land Management. A brilliant young crusader, Goldy was sent out from Washington in 1948 to head up Interior's several land agencies which two years earlier had been brought under that newly created bureau. He supplanted W. H. Horning, a forester of national standing who is now in Washington as Chief of the Bureau of Land

Management Division of Forestry. During the 10 years since 1938 Horning had been putting together a technical staff, inventorying and otherwise preparing the property for administration under the O & C Revested Lands Act of August 28, 1937.

Goldy made his presence felt through shrewd publicity and by encouraging the smaller operators to bid on federal timber, there being a favorable market by then. By 1951 he had acquired a following, at least among the small mill operators, who were quick to read into his replacement something sinister. Yet it is possible that the number and standing of the many sawmill men who did not approve his tactics were a more powerful influence and the chief cause of his removal.

There has been still another issue with noisy potentialities; disposition of proceeds from timber sales and other income from the O & C Lands. Since March 1, 1938, such income has been distributed according to a formula prescribed in the 1937 legislation which calculated: 1.) to indemnify the 18 counties wherein the lands lie for taxes lost since 1916 through removal of this property from their tax rolls; 2.) to provide funds for future administration, and; 3.) to return to Uncle Sam monies expended in connection with their reacquisition and management prior to 1938.

Half of the annual income was to be paid to the counties in proportion to the taxable value of such lands in

each county. One fourth was to be made available in such amounts as the Congress should appropriate for administration of the property, and amounts not expended would be retained by the Treasury. The final fourth was to be paid initially to the counties until all tax claims not previously settled by the federal government had been met. Thereafter this portion of annual income was to be retained by the Treasury and applied to reimburse Uncle Sam for payments made to the counties under the Stanfield Act of 1926, and for other outlays. When all such deficits in the Treasury's O & C Fund should be cleared up, *this one-fourth would thereafter go yearly to the counties.*

Thus these counties would eventually participate in the growing and selling of O & C timber to the extent of receiving three-fourths of all earnings. This contingency did not appear important 14 years ago, when the O & C Fund was in arrears \$10,472,893. Yet by 1950 the debit balance had been reduced to \$1,400,478, and it was expected that another year's operations would wipe it out entirely, thereafter adding over a million dollars to the yearly income of the counties concerned.

It was inevitable that this state of affairs should come to the attention of the Congress, since the latter must be called on each year for the withdrawal to protect and develop the timber holdings and sell the annual quota of stumpage. The particular stone that upset the apple-cart was



Heavy-duty equipment is playing an important role in getting the timber from forest to a market expanded by defense needs

doubtless a request upon the Congress for a million dollars with which to construct new "access" roads to certain undeveloped timber areas in the O & C domain. For Fiscal Year ending June 30, 1950 such an item was approved in the amount of \$600,000.

This year, however, the House Appropriations Committee jumped all over the proposal, pointing out that a million dollars added to the necessary costs of fire protection and the maintenance of a staff for managing the holdings would take a total sum too great to be repaid out of one-fourth of the year's timber sale income. And it was apparent that administrative costs must increase further as the property is more fully developed.

Oregon's Senator Guy Cordon and Representative Harris Ellsworth, both fully informed regarding the intricacies of this problem, recognized the reasonableness of the contention that the counties have no valid claim to additional payments at Uncle Sam's expense. They promptly introduced bills in both Houses to make the government's share 50 percent, subject to appropriations for administration, after July 1.

Opposition in the County offices to such legislation is non-existent, or at most half-hearted. Actually, it is believed the men who carry on local government and collect county taxes would prefer to have the yearly income in lieu of taxes from all federal lands fixed at some definite percentage of appraised value. Such a proposal was one of the favorite projects of the late Senator McNary, and Senator Cordon has also tried to secure action in the Congress. This scheme would offer stable and in many cases increased income to counties and states on account of non-taxable federal lands. Yet its enactment into law presents many problems and probably lies at some distance in the future.

Meanwhile, the counties are doing nicely with their 50 percent of annual income. Even though certain disgruntled timbermen may advocate turning the O & C Lands over to the Forest Service for administration—in the belief that this federal agency would be more reasonable to deal with than the Bureau of Land Management—it is unlikely that they will find strong support in any of the County offices.

This is simply because it is well known that the O & C Lands make proportionately larger contributions to County treasuries than do the National Forests, and at present distribute them more in proportion to the areas of federal land in the several counties. Only 25 percent of National Forests timber monies go to the counties, plus 10 percent for building and maintaining of roads. It is difficult to find in the present O & C Lands squabble any broad pattern of indications that this controversy is being used effectively as a pawn in the long continued struggle

to realign federal land and forest management agencies.

While strong partisans might read into the Goldy resignation a defeat of good government administration, it appears just as reasonable to regard it rather as a timely ending of an unnecessarily turbulent and unduly self-righteous regime. If, as is expected, the new regional director of the Bureau of Land Management turns out to be a skillful trouble shooter the situation should improve materially.

It should be borne in mind that the parties to this disagreement are well matched as to resources of legal and other talent. The so-called "independent" loggers and mill-men have a strong association, with an able executive functioning in a Portland office. Having secured the backing of the higher local echelons of mill and woods labor and the Izaak Walton League for an attack upon the principle of joint management of public and private forests, this group probably is most responsible for starting the agitation for more and smaller sales during the closing days of World War II, and for keeping it going ever since.

The larger operators own considerable areas of intervening forest land in the O & C corridors, and most of them have for many years past been buying government timber as they come to it. They are firmly established in the region as manufacturers and large employers of skilled labor. By reason of their own considerable holdings, such operators have been in a position to cooperate with Uncle Sam in joint management of forest land under the O & C Act of 1937.



One or two have actually made initial proposals.

While such contacts have been pointed to as indications that the large operators are attempting monopolistic "deals," the facts scarcely bear out such a presumption. One of the leading firms, with large private holdings, states simply that it intends eventually to go on a sustained yield basis, regardless of Uncle Sam's policy with respect to O & C timber. It believes such management will be best for its own long pull. Meanwhile, as such publicly owned tracts are reached in its operations, it buys government timber from the Forest Service and from the Bureau of Land Management, granting and receiving rights of way as required, and awaits eventual clarification of federal policy affecting the O & C lands.

Counties which contain these lands have their own organization for dealing with Uncle Sam and others, and employ able attorneys to look after their interests. The present senior Senator from Oregon, Guy Cordon, served in that capacity for many years. Because of awareness in the county offices it appears that one phase of this O & C ruckus, that of disposition of annual income, will be solved peaceably by Congressional action on the Cordon and Ellsworth bills.

At least two problems remain. One is the Department of the Interior's old shortcoming of failing to support fully in Washington its field administrators. There has been delay in supplying personnel, policy and funds for organizing and carrying forward the really delicate and exacting relations with its would-be customers, their employees and the local

public. For similar reasons technical preparations lagged, while sales still are held below possible levels by insufficient field staffs.

The other problem, while highlighted by the right-of-way arguments, is much broader. It is the fundamental question of whether the Bureau of Land Management is to administer the O & C Revested Lands Act of August 28, 1937 in accordance with the intent of its framers. This intent was outlined in detail by C. Girard Davidson, assistant secretary of the Interior, under date of June 2, 1948. In that directive to the Bureau it was stated that the Department intended to:

- 1.) Promote the economic stability of communities dependent upon timber through sustained-yield management;
- 2.) Increase employment and business opportunities by encouraging fuller utilization of the timber supply;
- 3.) Provide a more abundant timber supply by accelerating through intensive management the rate of timber growth;
- 4.) Protect watersheds, regulate stream flow, and prevent soil erosion by conserving the basic forest resource;
- 5.) Provide increased opportunities for hunting, fishing, camping and other sports by developing the recreational values of the lands.

Framers of the 1937 Act were acutely conscious of the fact that the revested lands had been subjected to mismanagement by Uncle Sam, himself. Their intent was to provide for future handling of these woodlands in the manner best calculated to provide steady and unfailing timber production through growth, or in other words by the practice of forestry.

They were similarly conscious of

the fact that a greater number of individuals and corporations held title to the sections and fractions of sections that lay among the publicly held tracts, and that these owners might be induced to integrate their holdings with Uncle Sam's for the practice of forestry. Such integrations for joint management might be accomplished directly with small owners, but presumably would be more effective from the manufacturing viewpoint if accomplished with operators who could block up considerable holdings of intervening lands.

It was not intended or provided in the Act that sale of government stumpage should be made in any manner other than the time-honored competitive bidding. However, the Act did provide that the Secretary of Interior might reject any bids which might interfere with the sustained-yield management plans adopted in cooperation with other owners. It also was provided that before such plans could be made for joint management of intermingled lands, open hearings should be held in the locality, at which opponents and supporters of the plan might be heard.

By effecting long term agreements with private owners, the government could promote better management of such private lands and actually increase the production of timber by fully utilizing growth. Presumably, employment might be increased in the dependent communities through the ability of operators assured by permanent timber supplies to make heavy investments in facilities and processes for more complete tree utilization. In short, it was believed that forestry on all timber lands in

The rugged terrain makes logging operations difficult in some sections of O & C land







Mechanization makes it more difficult for small operators to match corporation bids

an area would be better for the public as well as private interests than forestry only on government lands.

The catch in the program was that old devil "monopoly," since agreements with private cooperators would necessarily contain certain assurances that the latter could purchase government timber as reached. Prices would have to be based on periodic appraisal, rather than unrestricted competition.

Under such a program, the government would be likely to receive more from timber sales in periods of slow markets, and relatively less in boom times such as have been the case the past few years. Yet it is not at all certain that Uncle Sam would be better off in the long run riding the booms and recessions that are traditional in the timber conversion business.

In 1938, when the Interior Department instituted its new management of the O & C Lands, under the Act of the previous year, few paid attention to the various indications that a new basic principle—joint management for sustained yield—was being introduced. The Forest Service was investigating its feasibility upon certain National Forests, and in a short time actually accomplished such an arrangement in western Washington. Up in Canada such a principle had long been applied in selling timber from "Crown" lands, with full public

understanding and acceptance. But in Oregon there was indifference among the general public and only a mild interest in county offices and among the larger operators who might become cooperators.

When preparedness for World War II awoke the timber business to new life, many small operators, who had been inactive during the lull became acutely concerned regarding their prospects of buying O & C timber. They now feared that the trend toward joint management sustained units in the revested lands would freeze them out of future supplies.

Some of these loggers and millmen owned intervening forest lands, many did not. Joining in an association, they plugged for a sales policy whereunder Uncle Sam would sell by competitive bidding to any and all operators without reference to private land ownership. And, naturally, they were opposed to the joint forest management principle, as it was being worked out by the field executives of the Interior Department.

Thus, when the first of several potential joint management agreements reached the point of open public hearing, a tremendous wave of criticism swept over the project. Washington officers who attended the hearing as representatives of the Secretary of the Interior are believed to have reached the conclusion that whether or not the proposed agreement with the Fisher Lumber Company of Marcola was good forestry, its consummation would be bad politics.

The Department issued the above mentioned Davidson directive purporting to set forth certain advantages of the joint management principle, but since 1948 few steps have been taken in the direction of making such agreements with eligible firms. On the other hand, it is alleged by observers that there has been sniping by Interior Department officers at the Forest Service and its long term agreement with the Simpson Logging Company in the state of Washington.

Regional Director Goldy carried on a strong campaign of publicity advertising the policy of making sales to non-landowners as something new, which it was not. The issue of demanding rights-of-way across private lands under easements which would permit wide open bidding upon all tracts of O & C timber was raised and bitterly opposed by some owners of intermingled tracts.

Probably there were cases of owners attempting to prevent competitors from invading their operat-

ing territory by blocking efforts to obtain rights-of-way. Probably there were cases of the Bureau of Land Management demanding more sweeping rights than actually were justified. In time, the matter was worked out on a fairly reasonable basis, similar to that in use by the Forest Service in this general region.

Planning for sales and cutting 10 years in advance was announced as a measure to be adopted throughout the O & C enterprise, and this is being gradually introduced. Volume of sales and of timber removal are continuing at about the levels of 10 years ago. Average size of sales has declined from 172 acres to 107 acres, while average selling price now is \$11.97 per thousand board feet as against \$4.23 five years ago and \$2.29 in 1940. This tremendous increase indicates chiefly that the timber market has run away in the O & C area as elsewhere. Still hampered by insufficiency of technical personnel, field officers have made good progress in improving management, including planning and fire protection.

It is not clear, however, whether joint management agreements are a dead issue. There are many people who believe that the intent of the 1937 legislation was sound and in the public interest. They believe the American public in general and Oregonians in particular will have cause to feel aggrieved if Uncle Sam declines to use his bargaining power to improve forest management upon upwards of two million acres of private woodland. They believe that the question of whether a would-be purchaser of O & C timber owns forest land adjacent thereto and manages it properly for the long term production of trees might well be a condition of purchase of some—but not necessarily all—public stumpage.

Both sides in this broad controversy allege that political pressures are being applied to upset present policies and arrangements. This may be true. If the times were less turbulent and not so filled with issues affecting the national welfare more urgently than does the nation's timber supply, it might be helpful to have a high-level investigation of the government's stewardship since 1937.

Less dramatic, but possibly more helpful, would be some campaign to arouse and educate Oregonians as to what has been and is being done with the O & C Lands, so that local people can help to guide intelligently those who are hired to manage these forests.





Here's the answer to appetites jaded by a steady diet of frying pan foods. Perfect for mountain cabin or lake retreat

By BESSIE D. EBERTING

**W**HILE the appetite of an outdoorsman is legendary, even the hardest woodsmen sickened of fried potatoes and canned pork and beans after a few days. With an old-fashioned Dutch oven in camp, variety can be added to the menu and the appetites revived with a minimum effort.

A cast iron kettle is certainly not an item to be dragged along on a hiking trip or added to the burden of a pack horse on a weekend excursion into the back country—but it is one of the most versatile utensils the owner of a permanent camp can possess. In a Dutch oven, a whole meal can be cooked to perfection while the camp chef takes the day off to go fishing. It also provides a means of baking on an ovenless stove, doing a pretty fair job on biscuits and corn bread. Once I baked a pie crust in a Dutch oven and, although it wasn't quite up to standards of excellency possible in a modern kitchen, when filled with lemon custard and topped with whipped evaporated milk, it was ambrosia to a gang of famished fishermen.

When purchasing a Dutch oven for your mountain cabin or lake retreat,

choose one large enough to hold a meal for a crowd—and get the heavy, black cast iron kind like grandma used to cook New England boiled dinners in. Your Dutch oven will outlast the cook and the camp, so you are making a permanent investment and you might as well buy one big enough to hold a shoulder of venison or a bear ham.

To use a Dutch oven in a firepit, choose a time when there is plenty of wood available for preparation of your bed coals. Driftwood can be used or, if you are clearing brush from your campsite, this is a good way to get rid of scrap wood.

The firepit should be about three feet deep and three or four feet across. Kindle a fire in the bottom of the pit and replenish it until a deep bed of coals has accumulated. Meat and vegetables may be prepared while the fire is burning.

Any kind of meat can be cooked by this method—a pot roast of beef or shoulder of lamb, venison or elk or game birds or smoked ham. Trim meat and wipe with a damp cloth. Then rub it with salt and pepper. Rub on some garlic salt, too, if you aren't allergic to its pungent flavor. Peel potatoes, carrots and onions,

quartering those that are over-sized. Cabbage should be cut into serving-size segments. Let the pared vegetables soak in cold water until the bed of coals is ready.

When the fire has burned for at least two or three hours and your pit is well nigh full of coals, it is time to put the pot into it. If your meat is exceptionally lean, melt two or three tablespoonfuls of shortening or bacon fat in the Dutch oven before putting the meat in. Arrange vegetables around and on top of meat, sprinkling them with salt. If you have majoram or bay leaf, they will contribute to the finished product's flavor.

Put the Dutch oven cover on tight. Now, shovel most of the coals out of the firepit, taking care not to scatter them. Then set the Dutch oven in the center of the pit and replace the coals, distributing them all around and on top of the kettle. Finally, cover the whole thing with a layer of dirt deep enough to prevent any air reaching the smoldering embers. This is most important, so don't be niggardly with the top soil as you don't want your supper to char. Now, go away for the rest of the day

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# TreeF



Prominent at fete were Mrs. C. S. Clemons, and from left, Chapin Collins, J. Philip Weyerhaeuser, Jr., W. B. Greeley

It may look like haphazard cutting, but leaving blocks of seed timber is effective way of restocking the land



By W. B. GREELEY

THE old-timers who came to Montesano, county seat of Grays Harbor County, Washington, on June 23 to celebrate the tenth anniversary of Clemons Tree Farm, had stacks of stories to tell on the change from old forests to new in the region. Clemons is the eldest among the present American family of 3109 privately-owned, taxpaying, certified tree farms in 29 states. A point often made was that the yield of an average acre of old-growth Douglasfir is now 25 percent above the output of 20 years ago. The Western hemlock, once a weed tree, now goes to the mills. The logging leftovers of yesterday are now gleaned.

The logging records of Grays Harbor County show that a single section of the land now in Clemons Tree Farm yielded 83,000,000 board feet. This amount would supply the building of 830 small homes today. It would load 2766 railroad cars, or four and one-third cars per acre. Many more millions of feet of low-grade, unmerchantable logs were left on the ground.

A sense of magic flowers from such earthy facts and figures when the ability of the land and climate of the Douglasfir region to grow trees is in review. It is a prodigious power of nature, and it is the taproot of tree farming on the Northwest Coast. Hooked up with modern utilization, research and marketing of wood, it is producing new wealth for the region and new hopes for its future.

On Clemons' tenth anniversary Governor Douglas McKay of Oregon came up to Montesano to join Washington's Governor Arthur B. Langlie

AMERICAN FORESTS

# Tree Farms' 10th Anniversary

Pioneers celebrate founding of Clemons project, eldest in still-growing family of 3109 now scattered over 29 states

and a prize collection of forestry and logging leaders for a public look at the record of a decade of tree farming.

Governor Langlie painted this picture:

"Fifteen years ago the forest industries of Grays Harbor County were considered to be through. Nearly all of the old-growth timber was gone. Aberdeen and Hoquiam were pessimistically scheduled to join the army of ghost towns. . . . Today the forest industries of Grays Harbor County exceed any period of the past in number of people employed, dollar value of output and plant capacity. Their future is assured, by not only Clemons Tree Farm, but the other tree farms of the area."



On the range of hills that rose from Montesano's high school football field, where the governors spoke, the new crops of Douglasfirs stood tall and as thick as the proverbial hair on a dog's back. From them, looking west, the stacks of mills and factories along Grays Harbor's shores could be seen. There was the great plant of Rayonier, Incorporated, with its own tree farms and a market for

Western hemlock from owners all over the county. Tens of thousands of cutover acres are being re-logged for the "weed tree" of other days. There were ladies with rayon dresses and men with rayon suits in the Tree Farm Day crowds at Montesano. They reflected the place of research and marketing in tree farming.

Another phase of the transition from old forests to new in the Aberdeen-Hoquiam industrial area is a factory that produces chairs in mass volume. The rounds are turned from little "squares" of Douglasfir, pieces that once fed the sawmill burners. They contrast powerfully with the huge squared timbers of Douglasfir that made up the bulk of Grays Harbor's exports of wood in the old days. The latter did not yield a tenth of the man hours of employment that chair making provides.

It was a day of genuine celebration for all the people of the county. Away East of Montesano was reborn McCleary, where a pioneer door factory had closed down in the 1930s and was then restored and expanded by the Simpson Logging Company in



Seedlings interest, l. to r., Henry McKnight, Wheeler McMillen, Kent Leavitt, Kenyon Boocock and Jake Hisey





Dr. Wilson Compton, left, president of Washington State College, and J. Philip Weyerhaeuser, Jr. at Montesano gathering

its tree farm and utilization program. Hundreds of jobs and homes were saved and put on a permanent basis. Thousands of farmers in the county have seen new values rise in the woodlands of their "back forties." Scores of wage-earners of the woods and mills have invested their savings and borrowings in trucks and tractors and in small sawmills to become free enterprisers in the past decade.

Ed Picco hauled big logs of Sitka spruce, Western redcedar and Douglasfir in from the Humptulips for street display. Bob Smith brought in

his champion team of strawberry roans to demonstrate that horse logging has come back in the woodlands. Gardiner Jones of the Washington State Game Commission and Forester Robert M. Ramstad had an exhibit of fawns that had been tagged on Clemons Tree Farm as part of a joint project. Trees and deer are twin forest-land crops. Schafer Brothers Logging Company exhibited young Douglasfirs that had been killed or seriously damaged by bears—a rapidly increasing problem on West Coast tree farms. There was a show for the young folks in which toy trees were logged by toy tractors and rigging. Two old Douglasfirs on the school grounds were used for a demonstration of tree topping and timber falling. Decay required their removal. They are to be replaced with 20 ten-year-old Douglasfirs from Clemons Tree Farm next planting season. There were other sights to behold, and then free hot dogs and coffee from the high school's kitchen, with a logging camp "gut hammer" ringing in the crowds.

The visitors numbered such men of distinction as Dr. Wilson Compton, who led the extension of tree farms to the South and East from 1941 to 1944, and who is serving as President of the State College of Washington, Stanley F. Horn, Southern lumber editor and historian, and Gerald Seaman and other producers of the National Broadcasting Company Farm and Home Hour, which gave Montesano's Tree Farm Day half of its June 23rd program.

Clemons Tree Farm's 155,000 acres—owned by the Weyerhaeuser Timber Company—with another

172,000 acres in other ownerships, all under the same management plan—reaches over mountains and to the Pacific. The bay and harbor were named for the Yankee Captain Robert Gray, who sailed in during his 1702 voyage of discovery. The area's first sawmill was started on the Chehalis River in 1848. Like Col. Michael Simmons' mill, built over East on Puget Sound at about the same time, it was run by water power. The "bullteams" of early big-timber logging began to snake "turns" of Douglasfir off land that is now Clemons Tree Farm in 1883. They were rafted in the Chehalis.

By 1933 a half-century of logging and man-caused forest fires had made a big clearing of the greater part of the acres of wilderness timber. A good many were coming back with new growth. All were inadequately protected from Enemy Fire. The forest industries were deep in the red. Through the smoke and the gloom investment in tree growing looked to be a long way off indeed.

Yet, within 18 years the smoke was cleared away and the land was bright. Inside a 50-mile radius of Montesano there were nine large-scale tree farms by June, 1951. Like the others of the West Coast and the nation, they had their seed sources in the forest conservation committees that were set up regionally and nationally on a voluntary basis after the demise of the Blue Eagle of 1933 and the forest practice provisions of its Lumber Code. Forest management plans had grown slowly among private owners as building picked up, providing better markets for forest

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Thinning over-dense stands of young timber is a good management "must"







Even the mammoth can fall prey to tiny aphids ("plant lice")

# RAIN

## from your Shade Trees

The weatherman isn't playing tricks. That sticky solution means insects are at work

By JAMES P. McWILLIAMS

**W**HEN summertime storm clouds gather and finally unload their usually welcome though sometimes discomfoting deluge, no one is really surprised. But if on a perfectly clear day, while beneath your pet shade tree you find a mist-like solution raining down, you're convinced the weatherman is playing tricks. Surely, it makes you wonder what causes this "tree rain" which coats with a sticky solution your car, baby stroller, lawn furniture, best clothes and any other object parked in the shade.

To add insult to misery, this messy coating collects and holds all the plant chaff and dust from the surrounding atmosphere. The "rain," known as honeydew, is primarily a sugar solution which can be traced to its source on the leaves and needles of broad-leaf and evergreen trees. This is first-hand evidence that insects, principally of the sap-sucking variety, are at

work on your favorite shade trees and that something should be done to stop their unsightly attack and resultant gluey rain.

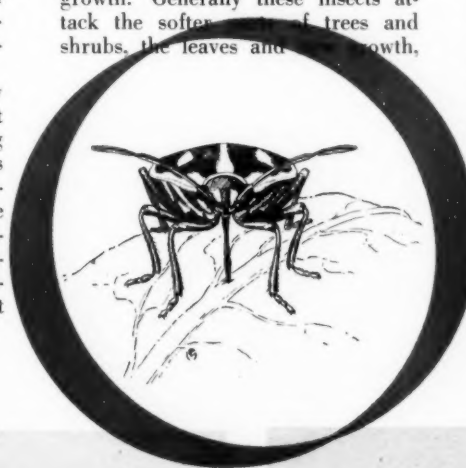
Aphids or "plant lice" and scale insects are two groups easily recognized as belonging to the order of sucking insects which are among the most destructive agents of ornamental or shade trees, and at times cause extensive damage to forest growth. Generally these insects attack the softer parts of trees and shrubs, the leaves and young growth,

by thrusting their bills through the outer tissues and drawing off the plant juices. Usually as a result of this feeding process, the scales and aphids in vast numbers excrete the sticky honeydew to such an extent that it rains from the trees.

Wetting the leaves and ground, or anything beneath the infested plant, the honeydew is hard to remove from articles, molds readily into a black sooty mass, and attracts swarms of insect visitors, such as ants, bees, wasps, and flies. Throughout the United States, the active period of feeding and excretion of honeydew goes on during the months of April through September.

Aphids are tiny soft-bodied insects, pear-shaped or somewhat globular. They are variously colored and sometimes woolly. Because they rarely move much and are slow of locomotion, a cluster of green aphids may

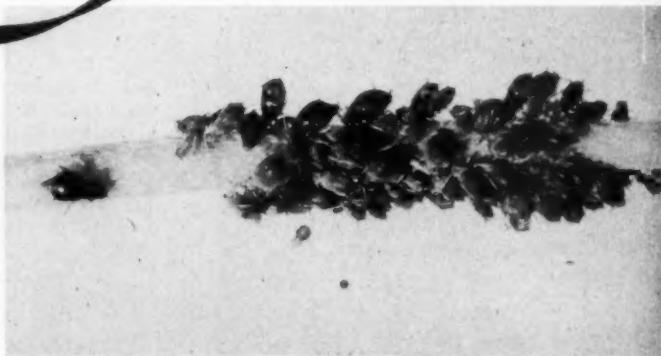
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Destructive oyster shell scale attacking twig of hardwood tree



A colony of aphids can soon damage the entire system of a plant





By WILLIAM CURTIS

# UILL PIGS...

**C**ECIL'S old bear hound, Baldy, opened with a long, quavering bawl that echoed up from the deep rough canyon below the talus rim where we sat listening.

"Nellie hasn't let out a squawk yet," said Cecil. "I'm going to horn the potlickers in. That bear track is so old it's got whiskers, and if they did jump him in that jumble of rocks and brush, we'd lose them in twenty minutes."

The dogs responded to the horn a lot better than any of mine ever did. We soon spotted them working up through the dense chimissal brush toward us. They were just below an old apple orchard when they cut loose with wild bays of excitement and pain.

"What the . . . . .?" I looked blankly at Cecil.

"A quill pig," yelled Cecil. "Let's get down there before the hounds get loaded with quills."

I followed the trail Cecil plowed through the brush, but this part of Calveras County, California happened to be plenty rugged, and we could tell by the painful whines we were arriving too late. If ever two hounds looked like a pair of sad sacks old Nellie and Baldy did. They were standing on their noses digging against their mouths with flailing front feet. Their faces, chests, and legs were almost hidden by quills. The porcupine lay near by stone dead—I'd seen dogs get stuck plenty of times before, but this was the first time I had ever seen dogs kill a porky.

We pulled over 250 quills from the protesting Baldy. A few were broken off even with the flesh in the roof of his mouth and we had to cut them out. We'd always heard porcupine quills were full of air and if snipped off would come out easier. This definitely wasn't true, for we tried it and they were harder to pull out even with pliers we were using. Evidently the quills aren't very infectious for both hounds recovered with nothing worse than badly swollen facial gear.

That was my first "close up" experience with a porcupine, and I immediately became interested in this shuffling "pincushion" of the woods. I found hunters slung plenty of fantasy around concerning these queer critters, but actually knew little fact about them.

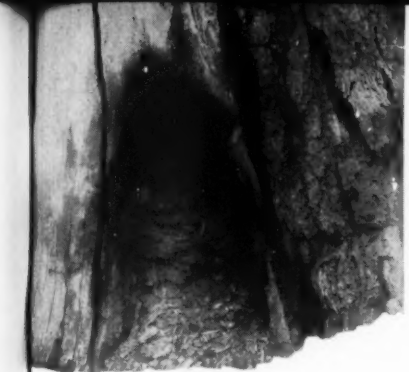
Their breeding habits are practically unknown, but it is known that they raise only one young. The young are born in a den in the rocks or a hollow tree. Even when born they have a few spiny hairs on their backs. At an early age the baby porcupines are out of the den, rambling around in search of succulent bark and twigs. They also feed on apples, alfalfa, and garden crops. Their love of inner bark and cambium, particularly of coniferous trees such as the yellow pine, has brought the U. S. Forest Service down on porky and, contrary to popular belief, they are not protected in most areas.

The porcupine is increasing rapidly in many regions due to its lack of enemies. I was amazed at the num-

ber of girdled pines I found in Modoc County, California while deer hunting this year. I saw seven porkies one night last fall on a 35 mile strip of road along the Klamath River. In years past the U. S. Fish and Wildlife Service has been forced to poison these animals to control them and may have to again.

The porcupine's love for salt is well known. Campers have found all sorts of cabin furniture chewed up because it was impregnated with salty perspiration from the owner's hands. The Fish and Wildlife Service used this fact for the basis of successful poisoning campaigns. Salt and strychnine mixtures could not be strewn about promiscuously, or domestic stock and deer would suffer heavily. Hunters located dens and placed the poisoned salt in them. These dens are not too hard to locate in porky territory. Inaccessible, rocky rims are a favored denning area, and occasionally dens may be spotted in large hollow trees. Sometimes as high as 20 quill pigs may occupy one hole, but in the spring the female selects a den by herself in which to rear her young.

Porcupines migrate to better feeding areas in the Spring and return to their Winter homes with the first cold weather of Fall. In some areas they make purely foraging migrations. When the ground is blanketed with several feet of snow, they have been known to remain in one tree for three months, and even if the tree isn't girdled, spot feeding usually weakens it.



A den in the rocks or a hollow tree makes a perfect home for Mr. Porky

A shuffling, ungainly creature, the porcupine nevertheless has "his points" and usually is accorded a wide berth by man and animal alike

## .. nature's pincushion

Porkies establish certain "rest" trees during periods of migrations and a good percentage of the "pigs" passing through will use the same tree. Poison stations have been placed in such trees high enough to be out of reach from straying stock or salt-hungry deer.

Many contend that the porky should not be killed as it offers a means of food for lost hunters, trappers, hikers, etc. This rattling pincushion is very slow and may easily be run down and killed with a club. We chased one this fall while deer hunting to see what it would do. Up hill its clumsy gallop was easy to overtake, but going downhill it required a sprint to catch Mr. Porky. When pursued steadily he would often turn around with quills raised and formidable tail poised to lash back and forth. This is probably the chief factor for the common but not true belief that a porcupine can throw its quills.

When molested repeatedly, the porky will finally scramble up a tree. Although not fast at anything, his long toe nails enable the quill pig to climb easily. The young are extremely ungainly in trees and must learn to climb gradually. All porkies have poor eyesight and may be easily stalked with a little care. If you remain motionless they apparently can't detect you ten yards away.

Some claim there has never been an authentic case of a lost person being saved from starvation by a porky. However, I recall reading in

Dillon Wallace's *Lure of the Labrador Wild*, that George, the guide, found and ate a porcupine that gave him enough strength to continue his search for help.


A few dourly claim they would rather starve than eat a porky. Back in 1947 we were hunting deer near Viola, in northern California. A quill pig seemed to develop a fondness for our camp, and was constantly making a nuisance of itself. It hung around so much we became afraid we might stumble over it in the darkness, not a pleasant prospect.

Finally one of the boys shot the critter, a big male, and decided to see right then and there if they were edible. I'll admit with his armor of quills, yellowish-orange, rodent teeth, and slightly scaly looking legs there was no resemblance to fried chicken and gravy. Skinning was somewhat of a chore. We started in on the legs, where there were hardly any spines. After skinning the legs and stomach we used pliers to strip off the rest of the hide. Porky was then chopped up, dumped into a bucket of salt water and soaked overnight.

The following evening the soaked quill pig reposed in our Dutch oven amid a formidable collection of spices and seasonings. Two hours of stewing and we couldn't even make a dent in the meat with a sharp fork. We put the fire out and decided to finish

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His lusty appetite for bark makes the porcupine a foe of the Forest Service





## THE MAN ON THE MOOSE

K. V. Butternitt was no ordinary mortal. He had solved the riddle of youth, communed with the creatures of the forest, and he was a congenial host. He was, that is, until someone exploited his talents

**M**R. K. V. Butternitt entered the premises of the Ramdam Hunting and Fishing Club riding the biggest bull moose I have ever seen, and the creature trotted briskly to the music of Cab Callo-way's orchestra. The rider, comfortably seated in a sort of a *howdah*, lowered a jug from his lips, waved a friendly hand in greeting. It was an impressive entrance, to say the least.

Monster, the camp dog, faintly but unmistakably hound as to ancestry, crawled sluggishly and furtively from under the porch, shook off the cloud of black gnats that were making his life miserable, gazed goggle-

By HARRY BOTSFORD

eyed at the approaching moose. Monster was not what you would call a gallant dog. He had been mistreated by a pair of touchy porcupines; a mother skunk had used traditional weapons in resenting his attentions. For a week he had lived the life of a pariah. Life had been unkind to Monster. He lifted a high tenor bleat of horrified fear, whirled and was gone.

The giant moose slid to a smooth and impressive stop before the screened porch. The rider spoke

gently and it obediently kneeled as he nimbly dismounted, reached into the *howdah* and turned off the radio, came toward us with a smile, carrying a gallon jug and exuding a curiously exotic and fascinating aroma of spirits.

"Gentlemen," he said with a slight bow, "permit me to introduce myself. My name is Butternitt, K. V. Butternitt. Your neighbor, gentlemen, on the other side of Allagash Mountain."

We greeted him warmly but we were, to tell the truth, a trifle abashed. Our eyes kept straying to the bulky form of the big moose



lazily reclining in the yard. K. V. Butternitt smiled. "That, gentlemen, is Mr. Armitage, my pet moose. He is named after a one-time business partner of mine, a very sound man, but addicted to over-indulgence in rich foods. He was a victim of ulcers, and he was interred on March 17, 1856, a very stormy and foul day it was, too."

He spoke precisely and slowly; each word was an individual project, but they emerged from beneath his long and drooping moustache with clean-cut clarity. He was a small man. He wore an ancient black derby, his nut-brown shirt was graced with a celluloid collar that glistened with an indestructible sheen of sheer whiteness. His trousers were made of elderly blue serge and were tucked in a pair of immaculately shined riding boots.

His pale blue eyes were ageless, but they twinkled behind steel-rimmed glasses. He smiled, lifted the jug, uncorked it, made obvious gestures of hospitality. Bob, who is a radio executive, lumbered to his feet and brought glasses. Our visitor beamed as he poured generously from the brown jug. The liquid was a pale and harmless pink in appearance. Doc Rose, the eminent surgeon and a daring man, took an experimental sip, smacked his lips. Jules, the cautious banker, took a tentative taste, lowered the glass just long enough to smile briefly, then swallowed the contents in one gulp. The liquor was a delight to taste; it had a flavor difficult to describe—slightly tart, but with a full rich body. We were soon to discover that the alcoholic content was also very high.

"You like it, I see," said K. V. Butternitt. "It is a formula of my own, a concoction of wild berries, laced with a judicious infusion of root extracts which I make in my own laboratory. I have a small perfectly appointed still, adequate to take care of my own modest needs, a mere jug a day. I have partaken of this tonic for 40 years. It has kept me healthy, remarkably healthy. What we are now consuming, gentlemen, is of the vintage of 1900."

And wonderful it was. Under its charm and potency, we found ourselves telling our guest about our troubles. The four of us had bought the camp at a bargain. Our guest smiled fleetingly as we said this. We had been most unhappy since we had arrived for some trout fishing in Pebble Brook. In particular, did we dwell on the invasion of a horde of

black gnats that had attacked us vigorously every time we ventured outside. The gnats had made fishing impossible. There was also the matter of porcupines and what seemed an over-generous prevalence of skunks in the area around the lodge.

K. V. Butternitt listened attentively, nodded his head at our recital. He even essayed an uneasy smile as we went into details. "I shall deliver you!" he said quietly. "You see, gentlemen, I have spent many years studying the ways and the languages of birds, beasts and insects. Do not smile, I beg you, for I speak the truth, as I will presently prove to you. These creatures can and do communicate with one another. I have patiently studied their language. I can understand it. I can even speak it." He paused to replenish our supply of the tonic, drank deeply himself, brushed the moisture from his drooping mustache.

Bob, standing behind him, grinned and made circular motions with his hands to indicate that our guest was undoubtedly balmy, an opinion we jointly shared at the time.

Our guest, well on his fourth glass of the tonic, seemed calm and alert. "I have recorded many of the calls of animals, birds and insects," he said proudly. "On the back of Mr. Armitage, I have a small short-wave broadcasting set. In strategic spots in this area I have set what is known as a public address system. Radio happens to be one of my hobbies.

I also carry with me a small album of selected nature voices. Mine is a unique collection, one I am loathe to share with a world that is too often unkind to animals. Let me demonstrate a few of my records, starting with the gnat mating call."

He trotted down the steps to where Mr. Armitage was comfortably dozing. The moose rolled an affectionate eye at K. V. Butternitt as he fiddled with a few controls on the dash of the *howdah* and adjusted an aerial across the great horns of the moose.

He selected a record, placed it on a turntable, clicked a switch. "Listen!" he commanded. "This is the mating call of the *Simuliidae*—it will fetch them, the sinful rascals!"

We looked at each other in amazement. Was this man a lunatic, or had the tonic been too much for us. The sound was a very low one, a buzzing that throbbed a little, whined a great deal. Millions of gnats appeared magically; there were so many of them that the sunlight dwindled to dusk. Mr. Butternitt smiled triumphantly, lifted the jug for a short snort and then shut off the recording. He stepped to the door, puffed out his cheeks until the drooping mustache was rigid. His lips moved slightly and from them issued a strange, low-pitched humming and erratic buzzing. Almost instantly, the cloud of gnats started to disappear. Presently the sun was shining again, the atmosphere erased of gnats. We left the porch, vigor-



ously pumped the hand of our visitor, congratulated him on the miracle we had witnessed. He smiled modestly and passed the jug around.

"The gnats will not be back for at least two weeks. Poor things, they have a short memory. They are not intellectual giants. I have asked them to stay away," he said gently, "but they will forget, they will forget."

We sat around and talked excitedly. Our guest remained calm, remarked that he had better do something about the porcupines and skunks. By this time, we were converts to the power of K. V. Butternitt. He selected another record and a rather high-pitched chatter emerged. From the edge of the clearing we heard a whoop of terror from Monster. He slunk into view, looked over his shoulder, whimpered like a banshee, and dashed for the lodge, crashed headlong through the screen door and out of sight.

Behind him, closing in from every side, came an orderly crowd of porcupines, young and old, fat and lean. There must have been a thousand of them. Ten feet from the porch, they stopped. Butternitt switched off the record, emitted one semi-muffled commanding sound and the porcupines sat down in unison, looking comfortable and attentive. K. V. Butternitt addressed them, and while you couldn't understand what he was saying, you gathered that he was scolding them. The ones in the front ranks hung their heads as though in shame. A fat patriarchal porcupine, evidently a leader and an elder statesman, stood up and directed some question at Butternitt. He was answered tersely. The visitor refreshed himself again from the jug, wiped his moustache and uttered a single command. The porcupines got to their feet, waved their spiny gray tails and walked away into the woods with unhurried dignity.

"They will not return, my friends," K. V. Butternitt assured us. Bob stuck his head out of the window. "Mr. Butternitt, you could make your fortune in television!" he exclaimed. "Say the word and you can sign your own figure to any kind of contract you want. There's a million in it, believe me!" I have never seen Bob Sutherland as excited.

K. V. Butternitt was not impressed. He lighted a long black cigar and smoke squirted from his nostrils. He was indignant. "Young man, money does not interest me," he informed Bob. "I retired many, many years ago, a wealthy man, to pursue my various hobbies in seclusion. I live

simply. It costs but little to carry on my experiments. The ingredients for my tonic abound in this area. The upkeep on Mr. Armitage is very low. My hobbies amuse me, but I'll be damned to you, sir, if I have any desire to amuse the world!"

And, that was that. It was frank declaration of independence. He turned brusquely for the skunk call recording. It was a strange call, a sort of an intermittent whisper punctuated with minor squeals. The skunks arrived, by the hundreds, a literal sea of black and white. "Think what would happen if they all became angry at once!" Doc whispered. I had thought of it, and it wasn't pleasant to contemplate. Again we witnessed the magic touch of K. V. Butternitt. He talked to them and the sounds that emerged from his lips seemed to be gentle but firm. At the conclusion, the army of skunks looked contrite in a very restrained way, marched off the premises.

"Some of them may return in a few months," Butternitt said. "Home ties and that sort of thing, you understand. They are like children. They are filled with humorous mischief, but they are infinitely wise and considerate."

He lifted the jug, something of a habit, I gathered. It was empty and a look of petulance swept across his face. He consulted an old-fashioned gold watch. "Dreadful!" he complained. "Most dreadful! Each evening at this time it is my custom to take a fairly substantial dosage of the tonic. I must return home at once. But, I will come back tomorrow. I would then like to discuss with you gentlemen the possibility of buying your camp."

He wasted no time. He vaulted into the *howdah*, yelled a command to Mr. Armitage and he was on his feet by the time our visitor had switched on the radio. He broke into a gallop that seemed to eat up distance. The Butternitt radio was given over to Gabriel Heatter, but we never had a chance to know whether or not there was good news, for Mr. Armitage was soon out of sight and sound.

We sat around and argued heatedly for a few minutes. Then Doc reached for his fly rod. "All I know is the damned gnats are gone!" he grunted. "Now I am going to have a comfortable hour of casting before dinner—and I hope the dinner will be good."

Jules advanced a theory that our guest had drugged and hypnotized us. But, there were no gnats. The

deep tracks of Mr. Armitage were clear and unmistakable. Reluctantly, we agreed that it had happened. Monster emerged from hiding, sensed the absence of porcupines and skunks, became his natural depraved and arrogant self, proved that he was back in the groove by marching past us with one of Jules hunting boots in his mouth. It required an active half-hour to regain possession of the boot and Monster enjoyed every minute of it, assuming that it was all in the spirit of play. We were resting when Doc returned, holding aloft a brown trout which must have weighed nearly five pounds. He was very happy about it. "Bless K. V. Butternitt for making this possible!" he said solemnly.

"Gosh, if I could only get that guy on TV, he'd knock 'em dead," Bob groaned. "He's a genius. He has color. What an act he could put on—why I could have sponsors fighting over him."

He fiddled with the wire recorder he had brought along and there was a speculative almost furtive look in his eyes. I recalled that he had been in the lodge when K. V. Butternitt performed his last two miracles. I had known Bob for years. I knew a lot about him. "You recorded the events?" I asked somewhat casually. He nodded. "Naturally—think I'd miss a thing like that? I should say not. Probably wasn't a very good recording, though."

Jules, a precise man, as are all bankers, had been figuring on the margin of a magazine. "Say, here's something you chaps missed," he said, waving his pencil. "Our friend is really old! You will remember that he said his late partner, Mr. Armitage, passed away in 1856. Well, if our guest was a full partner at that time, he was certainly an adult, say of at least 30 years of age. Which would make him around 125 years old of this date!"

We were silent as Doc brooded. He laid down the prize trout, which he had been preparing for the taxidermist. "Maybe that damned tonic is just what he says it is," he commented. "After all, he didn't lie about his ability to discourse with the creatures of the wild. Isn't it just possible that the tonic is all that he claims? I know modern medicine and the erudite Doctor Fishbien would probably say that the man is a charlatan, that the thing is impossible. They might be wrong! Sooner or later, they will be in error, just as

(Turn to page 36)

# Nature's Poison Foliage

By TED BENTZ

**"L**EAVES three, let it be; berries white, hide from sight." Despite this simple but explicit warning, about half a million campers, hikers, picnickers and others this summer will suffer the torments of the "big itch" as victims of nature's poison foliage. And in many cases the suffering will be needless. Much of it can be prevented by learning to recognize these lurking enemies and avoid them.

While there are many poisonous plants common to the United States only three—poison ivy, poison oak and poison sumac—are particularly dangerous to humans. Poison ivy is the most common of this unholy triad and no doubt accounts for a major portion of the annual discomfort. Actually poison oak is a variety of poison ivy, but since it is called by the former name in some sections of the country many persons regard it as a separate plant. Poison sumac is the least common of the three. One or more kinds of poison ivy occur in abundance in almost every part of the United States. Poison sumac is of more limited distribution and occurs chiefly east of the Mississippi River; usually in swampy regions.

Poison ivy and poison oak are known by a number of local names and several different kinds of plants are called these names. The plants exhibit a good deal of variation, so much so that even technical botanists cannot agree on the number of species and names that should be applied to them. They grow in the form of (1) woody vines attached to trees



Poison sumac

or objects for support, (2) trailing shrubs mostly on the ground, or (3) erect woody shrubs entirely without support.

They may flourish in the deep woods, where soil moisture is plentiful, or they may be found in very dry soil on the most exposed hill-sides. The plants are most frequently abundant along old fence rows and edges of paths and roadways, and they ramble over rock walls and climb posts or trees to considerable heights. They often grow with other shrubs or vines in such ways as to escape notice.

Poison sumac grows as a coarse, woody shrub or as a small tree and never in the vinelike form of its poison ivy relatives. This plant is



Poison ivy

known also as swamp sumac, poison elder, poison ash, poison dogwood and thunderwood.

Poison ivy is readily identifiable by its compound leaves, three leaflets to each stalk. In size, shape and color, however, the foliage varies considerably, depending upon the amount of sunlight it gets. Poison ivy foliage may have a jagged outline with heavy notches or merely one notch on the margins. Again the entire outline may be with margins curving from stem to tip. While leaves are frequently a purple color in Spring and turn to green during Summer, they are gay shades of yellow and red in the Fall.

Of the several kinds of poison ivy, the oakleaf form occurring in the Eastern and Southern states probably is the most distinctive. Some people know it as oakleaf ivy while others call it poison oak, a name more commonly used for the Western species. The Eastern variety usually does not climb as a vine, but occurs as a low-growing shrub with upright stems. The shrubs usually have rather slender branches, often covered with a fine pubescence that gives the plant a kind of downy appearance. The leaflets occur in threes, as in other ivy, but are lobed, somewhat on the general plan of the leaves of some kinds of oak.

The western poison oak of the Pacific Coast states is usually known (Turn to page 31)

**"Leaves three, let it be; berries white, hide from sight." Just a simple little ditty, but mighty good advice on how to avoid the torments of the "big itch"**



# REPORT ON AMERICAN BIG TREES

In September 1940, The American Forestry Association launched a campaign to locate the largest living specimens of American trees. After ten years of diligent search by cooperating individuals, the following list of "champions" is being run serially until completed. Common and botanical names listed conform to "Standardized Plant Names" issued by the American Joint Committee on Horticultural Nomenclature. Identification and measurements are by nominators. The challenge is to locate trees larger than those listed, if they exist, and also giants of species not listed. Send all reports to The American Forestry Association, 919 Seventeenth Street, N. W., Washington 6, D. C.

## PART V

Species (cont.)	Circumference at 4½ feet	Spread	Height	Location of Tree and Nominator
<b>PINE (cont.)</b>				
Limber, <i>Pinus flexilis</i>	24'5"	50'	44'	Cache National Forest, Utah. Wilford D. Porter, Logan.
Loblolly, <i>Pinus taeda</i>	16'1"	80'	115'	Near Corinth, Wake County, North Carolina. F. H. Claridge, Raleigh.
Lodgepole, <i>Pinus contorta latifolia</i>	19'	----	106'	Sierra National Forest, California. Harold S. Coons, Northfork.
Longleaf, <i>Pinus palustris</i>	10'7"	52'	85'	Urania, Louisiana. H. H. Chapman, New Haven, Connecticut.
Colorado Pinyon, <i>Pinus cembroides edulis</i>	11'3"	23'	33'	La Sal National Forest, Utah. Owen DeSpain, Moab.
Pitch, <i>Pinus rigida</i>	8'8"	40'	70'	Middleburg, New York. J. R. Hansbrough, New Haven, Connecticut.
Pond, <i>Pinus rigida serotina</i>	5'5"	32'	79'	Doncaster State Forest, Charles County, Maryland. F. W. Besley, Baltimore.
Ponderosa, <i>Pinus ponderosa</i>	27'1"	----	162'	Near Lapine, Oregon. Donald F. McKay, Portland.
Red, <i>Pinus resinosa</i>	9'3"	35'	85'	Douglas County, Wisconsin. Charles H. Stoddard, Minong, and Albert A. Johnson, Waukesha.
Shortleaf, <i>Pinus echinata</i>	10'7"	60'	146'	Morganton, Burke County, North Carolina. A. H. Maxwell, Morganton.
Spruce, <i>Pinus glabra</i>	13'6"	60'	105'	Near Brookhaven, Lincoln County, Mississippi. Monty Payne, State College.
Sugar, <i>Pinus lambertiana</i>	31'8"	----	200'	Stanislaus National Forest, California. J. R. Hall, Sonora.
Table Mountain, <i>Pinus pungens</i>	6'10"	----	----	Chattahoochee National Forest, Georgia. C. A. Rowland, Jr., Gainesville.
Torrey, <i>Pinus torreyana</i>	15'7"	114'	96'	Carpenteria, California. Edward H. Scanlon, Santa Monica.
Virginia, <i>Pinus virginiana</i>	8'11"	38'	58'	Cedarville State Forest, Maryland. F. W. Besley, Baltimore.
Eastern White, <i>Pinus strobus</i>	17'10"	----	----	Ottawa National Forest, Michigan. A. L. McBean, Park Falls, Wisconsin.
Western White, <i>Pinus monticola</i>	26'5"	----	207'	Bovill, Idaho. T. J. Starker, Corvallis, Oregon.
Whitebark, <i>Pinus albicaulis</i>	18'2"	60'	85'	Grand Teton National Park, Wyoming. Charles J. Smith, Moose.
<b>PLANETREE; SYCAMORE</b>				
American, or Eastern, <i>Platanus occidentalis</i>	25'4"	----	----	Conshohocken, Pennsylvania. M. D. Olver, Conshohocken.
California, <i>Platanus racemosa</i>	27'	158'	116'	Near Santa Barbara, California. Munsell Van Rennselaer, Santa Barbara.
<b>PLUM</b>				
American, or Wild, <i>Prunus americana</i>	5'	33'	29'	Near Steyer, Maryland. Karl E. Pfeiffer, Annapolis.
Inch, <i>Prunus lanata</i>	1'11"	28'	26'	Ouachita National Forest, Arkansas. Kendall Laughlin, Chicago, Illinois.
<b>POPLAR; COTTONWOOD</b>				
Balm-of-Gilead, <i>Populus tacamahaca</i> var. <i>candicans</i>	8'3"	48'	88'	Houghton, Michigan. William P. Nicholls, Houghton.
Eastern, <i>Populus deltoides</i>	30'	----	90'	Fort Kearney, Nebraska. V. W. Binderup, Minden.
Gray, <i>Populus canescens</i>	21'3"	90'	95'	Near Florida, Ohio. O. E. Files, Toledo.
Narrowleaf, <i>Populus angustifolia</i>	6'	25'	55'	Little Cottonwood Creek, Pueblo Mountains, Harney County, Oregon. Oliver V. Matthews, Salem.
Pacific, or Northern Black, <i>Populus trichocarpa hastata</i>	25'	----	----	Near Corvallis, Oregon. T. J. Starker, Corvallis.
Plains, <i>Populus sargentii</i>	29'8"	70'	55'	Near Thermopolis, Wyoming. O. F. Ludtke, Thermopolis.
Rio Grande, <i>Populus wislizeni</i>	25'2"	108'	72'	Moab, Utah. Owen DeSpain, Moab.
Southern, <i>Populus deltoides missouriensis</i>	21'7"	115'	124'	Near Geneva, New York. O. E. Files, Toledo, Ohio.
White, or Silver, <i>Populus alba</i>	13'7"	65'	75'	Near Erma, New Jersey. Robert C. Alexander, Wynnewood, Pa.
<b>REDBUD</b>				
Eastern, <i>Cercis canadensis</i>	8'	40'	----	Near North Kingsfield, Ohio. Newton G. Armstrong, Cleveland.

(To be concluded next month)

# Conservation by Decree

Retired since 1946 as SCS forestry chief and veteran of 18 years with USFS, the author appraises Agriculture's Memorandum 1278 and Fred Bailey's article of last month

I appreciate the opportunity offered by *American Forests*, to appraise Mr. Fred Bailey's article, *A Closer Look at Agriculture's Reorganization*, published in the July issue.

Except for briefly commenting on the article as a whole, I shall confine my analysis to the parts that I feel best qualified to evaluate—those dealing with the farm woodland work of soil conservation districts, the Soil Conservation Service, and the Forest Service.

I am sure that Mr. Bailey has accurately reported his interviews with various officials of the Department of Agriculture. He has given the reader an understanding of some of the complexities of the situation and, perhaps, an inkling of how the new plan can result in better conservation work by the Department agencies on farm woodlands.

I have no doubt of the sincerity of Secretary Brannan in this effort to coordinate the conservation activities of the Department. He has attempted to eliminate duplication and effect a unified direction and control of the forestry work in several bureaus and cooperating agencies. These are worthy objectives, and the new plan should be given a fair trial.

However, Section II-E-1, would seem to defeat the very purpose of the order because, if taken at face value, it would deny to the Soil Conservation Service the use of forest cover as a soil conservation measure. All planning of forestry work and assisting land owners in carrying them out was made the responsibility of the Forest Service. The only activity left to the Soil Conservation Service was the classification of land as suitable or not suitable for forest growth. This, of course, is the job of soil scientists. It is not forestry but a preliminary step to it.

The essential part of the section referred to reads as follows:  
"the forestry activities of the Soil Conser-

By JOHN F. PRESTON

vation Service are hereby placed under the direction and control of the Forest Service. The Forest Service, cooperating with the state forestry agencies, will be responsible for producing and distributing forest tree planting stock, developing plans for farm forestry and shelterbelts, and assisting land owners in carrying them out. For farms of soil conservation district co-operators, the Soil Conservation Service will continue to recommend, as part of its farm conservation planning, the land to remain in trees, the existing wooded areas to be converted to other uses, and where new woodland areas should be established by planting."

Mr. Bailey quotes officials of the Forest Service as saying that this wording "was misleading and unfortunate." These officials were then indirectly quoted as saying "nothing of the sort was, or is, intended." Since Forest Service officials were members of the Secretary's committee that drafted the coordination order, one cannot but wonder at their motives in failing to change the "misleading and unfortunate" wording.

Obviously, if the order really meant what it so plainly said, the effect would be to break down the integrated conservation program of the Soil Conservation Service. If forbidden to use the forest as a conservation measure, it would be just as logical to forbid it to use grass.

Other agencies could step in and do the planning and assist farmers in such practices as pasture and range management, and with equal justification. Is it then any wonder that the friends of the Soil Conservation Service became anxious and requested the Secretary to change the "misleading and unfortunate language?"

Fortunately, it soon became apparent that the Secretary had not intended either to attack the integrity of the Soil Conservation Service or to weaken the farm forestry program of the Department by eliminating the former from participation in it. Mr.

Bailey cites several "interpretations" that indicate the trend of thought. The Forest Service has been emphatic in denying any intention of stopping the forestry work of the Soil Conservation Service.

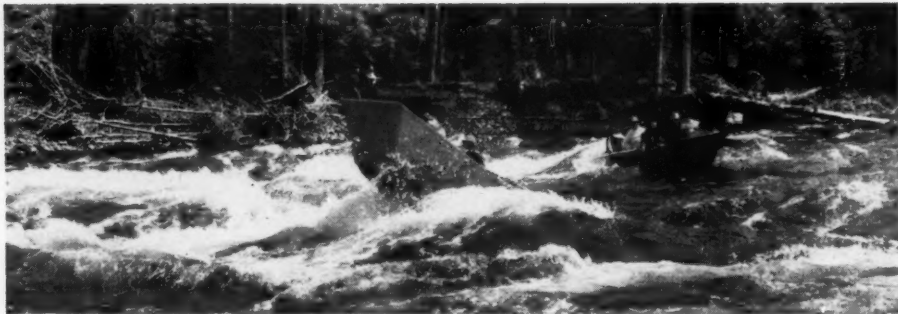
Of course, it would not make sense to tell the 2000 field technicians of the Soil Conservation Service to cease forestry activities. There will never be enough foresters available to do their work and, in my judgment, these men, because of their understanding of all phases of the farm business, are better qualified than foresters to interest farmers in the business of growing wood as a farm crop. That is one reason why the Soil Conservation Service has retained foresters to train conservationists in the fundamentals of forestry practices.

The most recent interpretation of what the Secretary actually intended is in a letter of June 8, signed by the Secretary, addressed to Waters S. Davis, President of the National Association of Soil Conservation Districts. This was written after Mr. Bailey's article was prepared. Here the Secretary says that the Soil Conservation Service is expected to continue its forestry work including recommendations to farmers about woodland management and the application of forestry practices in farm woodlands.

It must be admitted there are some limitations in the Secretary's letter that leave some doubt the Soil Conservation Service will be given enough leeway to enable it to do a really good job. The Secretary has told representatives of the Forest Service and the Soil Conservation Service to work out instructions and rules under which the coordinated forestry activities of the Department will be conducted.

It is hoped the new rules actually will enable the Soil Conservation  
(Turn to page 35)

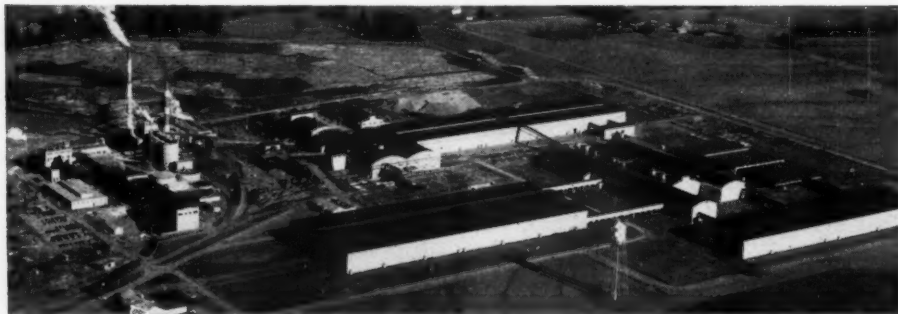
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NO. 6 OF A SERIES

## EUGENE-SPRINGFIELD

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By JAMES STEVENS

**"I**T was Henry Wadsworth Longfellow—unless I disremember—who wrote the history on how Davy Crockett taught a pack of wolves to drill like soldiers," said Uncle Ben Cotter. "Either him or John Greenleaf Whittier. Both did considerable history writing for the *Davy Crockett Almanacs* which were put out all over the nation in the years betwixt 1832 and 1856.

"One or t'other wrote the history of how Davy at ten shinned up a hackberry from a pack of slaving wolves," Uncle Ben drawled on. "Anyhow, it's history that little Davy let them stomp and howl at him till he found it tiresome, then he drove down to grab the two biggest, each by the hind paws, and swung them like a whirlwind at the rest of the pack, cracking heads most calamitacious.

"I learned by heart what Mr. Whittier or Mr. Longfellow, or maybe both together, wrote," declared Uncle Ben. "It read this-a-way—

"Whirling Davy banged over 17 of the slaving wolves, ontill they quit their airthquake howling, and went to laying themselves down, paws up,

mewing for mercy like sick kittens. After that, Davy let 'em rest a mite, then he made all the mewing wolves rise up and make their manners. Then, sech gratefutorious hand-licking and tail-wagging as went on! Davy forgave 'em all, took the hull pack to breakfast, and then teachd all the wolves to drill so's he could play soldier with 'em any time he felt like it."

"That's not my word for it, but Henry Wadsworth Longfellow's—or maybe Whittier's. Anyway, it's history," said Uncle Ben. "And I tell it to make it clear how Davy Crockett was all rigged up and geared to deal with the wolf trees of Oregon when he came out as a young man of 17 to save the Oregon country from the British. That's what the Indians called 'em—'wolf trees.' The name

Our hero invades the Lower Columbia's swamps to recruit and drill a weird platoon in chapter No. 8 of a Davy Crockett series

that the Lewis and Clark expedition gave 'em was 'the terror trees of the Oregon swamps.' Davy Crockett agreed to that."

Uncle Ben ruminated for a spell. We had come horseback up to the high range. A couple of wolves had killed one of the calves last night and in the panic both of the range cow milkers in the Cotter woods and mill camp had broken free with the other calf. Uncle Ben had pulled me from my chores after breakfast to track the cows with him. Now we were letting the cayuses graze while we ate a noon snack and scouted for cow and calf tracks. There was nothing that Uncle Ben liked to do more than to gab about Davy Crockett. I never minded listening. I expected he took me along

(Turn to page 43)

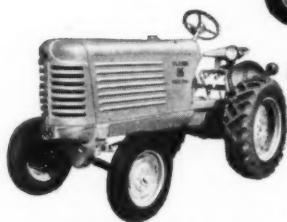


# OLIVER

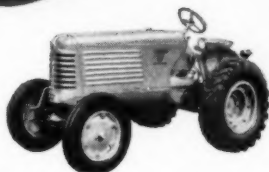
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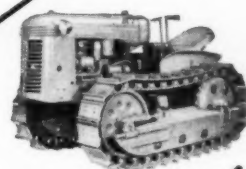
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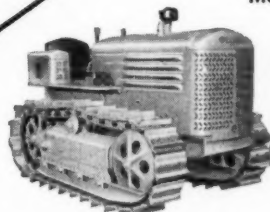
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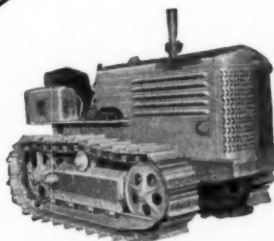
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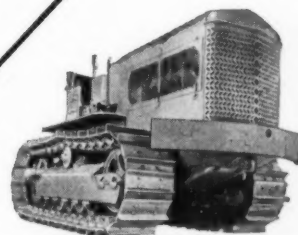
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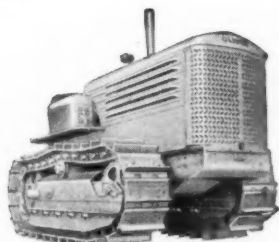
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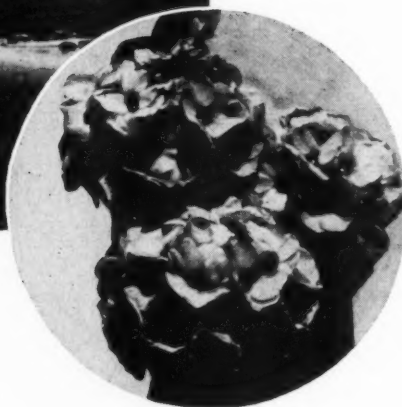
An individualist, the skypilot prefers the high country of the Sierra Nevada

## THE INVINCIBLE

# Skypilot

By PHILIP FERRY

A perennial, this hardy flower thrives at a higher elevation than any other in North America



CALIFORNIA mountaineers observe a simple but picturesque custom involving the scaling of high peaks. The climber who scales a peak of 13,000 feet or more is privileged to pluck a single bloom of a particular high mountain plant and wear it in his hatband as a symbol of achievement.

No more fitting choice could be made, for the flower chosen is one which grows only at the highest elevations. So far as is known, the skypilot (*Polemonium eximium*), has never been found growing below 11,000 feet elevation in the Sierra Nevada. This makes it the outstanding individualist of the whole Sierra flower garden. This sturdy plant, with its dense cluster of blue flowers, lives beyond the known limits of any other North American species and ranks first in the affections of many mountaineer-botanists.

As the climber makes his way upward to the higher altitudes and approaches the limits of life, his attention is focused on these frontiersmen of the plant world. These sturdy leaders have special interest because

they are particularly adapted for survival under difficult conditions.

Charles S. Webber, of San Leandro, California, amateur botanist and nature photographer, has made a hobby of seeking out this hardy plant. His observations indicate that the skypilot flourishes in the rarified atmosphere of heights above timberline along the crest of the Sierra from one end of the range to the other. Rarely has he found it growing below 11,500 feet elevation and he has come upon it in the most un-

likely spots. Specimens have been collected on Glen Pass, elevation 11,900 feet, and Pinchot Pass, elevation 12,050 feet.

He has photographed the plant on Dana Plateau in the Yosemite region; on Table Mountain in the upper Kern region; and on Forrester Pass, elevation 13,300 feet, the highest traveled pass in the United States. So far as is known, the 14,000 foot level on Mount Whitney marks the

(Turn to page 40)

Glen Pass, 11,900 feet up, is habitat of skypilot



**American Resources**, by J. Russell Whitaker and Edward Ackerman. Published by Harcourt, Brace and Company, Inc., New York 17. N. Y. 497 pages, illus. Price \$6.75.

Based on the premise that material resources are the foundation of our national power, the authors present the existing problems with somewhat of a new slant, and arrive at a more hopeful conclusion than most previous texts on this subject. They adequately take into account the social and economic and political setting of conservation problems, creating an awareness of the complexity of the various factors involved.

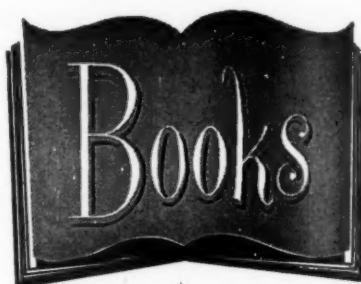
Both authors have long experience in the field of conservation resources, and are qualified to speak authoritatively on the need for a widespread recognition and necessity for a wise conservation management of natural resources.

**Uncle Sam's Acres**, by Marion Clawson. Published by Dodd, Mead and Company, New York, N. Y. 414 pages, illus. Price \$5.

With 25 years of professional experience, the last three of which have been spent as director of the Bureau of Land Management in the Department of Interior, the author aptly tells a comprehensive story of all the federally owned lands and the major federal water developments. He defines the part played by Uncle Sam as landlord for one-fourth of the total area of the country and the government's policies in forests, parks, recreation, power, irrigation, flood control, mining, grazing, Indian reservations, etc. A final chapter summarizes Clawson's views on federal land policies and politics.

**Spray Chemicals and Application Equipment**, by J. A. McClintock and Wayne B. Fisher. Published by Horticultural Press, LaGrange, Indiana. 320 pages, illus. Price \$6.

The result of six years of research and collection of data, this reference book is divided into two parts, the first of which gives historical background of many chemicals and detailed information showing how they are manufactured. Part two is a complete discussion describing almost every type of sprayer and dust available for use in applying spray chemicals. This text should prove a worthy reference to chemists, teachers, students, and growers of fruits, flowers and vegetables.



When ordering books—any book—remember that your AFA membership entitles you to a ten percent discount. Order through the Book Department, The American Forestry Association, 919 17th Street, N.W., Washington 6, D. C.

**Forest Products, Their Sources, Production, and Utilization**, by A. J. Panshin, E. S. Harrar, W. S. Baker and P. B. Proctor. Published by The McGraw-Hill Book Company, New York, N. Y. 549 pages, illus. Price \$6.

This illustrated text gives the reader a practical yet technical picture on the origin, methods of conversion, and utilization of the principal primary and secondary forest products in America, and those from other countries which figure in our economy. Special emphasis is placed on recent developments and trends in forest products conversion and utilization. The volume consists of four major sections, entitled, Economics of Forest Utilization, Wood Products, Chemically Derived Products from Wood, and Derived and Miscellaneous Wood Products.

**Water and Man—A Study in Ecology**, by Jonathan Forman and Ollie E. Fink. Published by Friends of the Land, Columbus, Ohio. 407 pages, illus. Price \$4.50.

Compiled and edited by Messrs. Forman and Fink, this volume contains a total of 30 chapters written by an impressive list of contributors, including many notable authors and others who are accepted as authorities in the field of water conservation. Also included are "Let's Teach Water Conservation," in which Mr. Fink discusses the necessity for educating the masses regarding their dependence on water; a discussion on U. S. Centers of Critical Water Supply; and Conclusions and Recommendations from the Hoover Report.

**My Camera on Point Lobos**, by Edward Weston. Published by Virginia Adams, Yosemite National Park, California and Houghton Mifflin Company, Boston, Mass. 80 pages. Price \$10.

Point Lobos, located on the California coast near Carmel, has been called the unique meeting place of land and sea, and here Edward Weston has set up his camera innumerable times in the past 20 years. Thirty of these great photographs are reproduced in this significant and stimulating book on photography. Herein is seen not only the world of Point Lobos, but a world of deep imaginative beauty as revealed by this inimitable photographer.

Excerpts from the author's personal journal, kept at the time the photographs were made, are also included.

**Guide to Paths in the Blue Ridge**, by Myron H. Avery, Compiler, and Jean Stephenson, Editor. Published by The Potomac Appalachian Trail Club, Incorporated, Washington, D. C. 1112 pages. Fourth edition. Price \$4.25.

One of a series of five guidebooks covering the entire Appalachian Trail, which extends along mountain ridges for 2028 miles, through 14 states from Katahdin in Maine to Mt. Oglethorpe in Georgia. The range of this handbook is confined to the Potomac Section of the Trail from the Susquehanna River near Harrisburg, Pennsylvania to the Virginia-Tennessee boundary at Damascus, Virginia, some 616 miles.

General and specific detailed descriptions are supplied for each section of the Trail to coincide usually with a day's travel by foot. Measurements, along the ground contour, are furnished for each section of the Trail to the nearest one-hundredth of a mile. A map shows the entire Potomac Trail section with side trails, approaching highways, and principal cities and towns. Camping facilities, shelters, lean-tos, springs, points of interest, and other special features are emphasized. Separate chapters are devoted to geology, wild flowers, forest trees, first aid, wood pests, snake bites and their treatment, and the uniform distress signal.

The entire guidebook has been revised through 1949 and is purposely designed in looseleaf form so that substitute revised sections can be inserted to keep the Trail descriptions up-to-date.

## Quill Pigs, Nature's Pincushion

(From page 17)

the cooking the next evening.

I had recalled many old woodsmen telling me what a delicacy porcupine liver was, so for breakfast we had fried liver. It was okay, but I couldn't see anything wonderful about it. I'd settle for deer liver and onions anytime. We came in from hunting late again that night and once more stewed old porky. It required four more hours of cooking before the meat became tender. I expected a strong, resinous flavor, but actually it wasn't bad. It tasted very similar to beef prepared in a like manner, if you could just forget it was a porky. At least, I know I'd never starve to death rather than eat one. I've sunk my teeth into sage hens that were much worse.

After looking at the amount of dark-tipped quills bristling on a porky it's no wonder many animals give them a wide berth. Some of the longer shoulder quills are three inches long and a porky occasionally tops twenty pounds in weight—quite a formidable foe. Each quill has numerous, diamond-shaped scales which serve as barbs and makes the imbedded shaft and point difficult to extract. The victim's muscle action tends to make the quills work deeper. Occasionally cows and horses learn much to their sorrow that the slow moving porky is not to be tampered with. Many a hunting dog has been sorry it ever met a porcupine. Yet some will tackle them again and again.

Wild animals often suffer from contact with porky. A Fish and Wildlife trapper found a coyote in Grass-hopper Valley, Lassen County, California, dying presumably from numerous quills imbedded in its nose and mouth. About all such an unfortunate predator can do is break off the quills shafts by rubbing them against the ground or rocks. The multi-barbed points continue to work into the flesh occasionally causing an agonizing death by starving or the injury of some vital organ.

Mountain lions and fishers will on occasion eat quill pigs. Lions have often been found with quills driven in them and porcupine flesh has been found in analysing their stomach contents. How they kill them is purely speculation. I suppose a lion could simply bowl one over with its powerful paw and begin eating it by

ripping open the belly where no quills are found. Some claim that fishers burrow beneath the snow, coming up under their prickly quarry and attacking the vulnerable stomach.

Both these predators are so rare, however, that even if porky meat was at the top of their menu, they wouldn't dent the population. Careless motorists kill far more by running over the ambling critters. Dead porcupines are a common sight among northern California highways nowadays, a sure sign of rapid increases in the porky's population the past few years.

Although these rambling pincushions can bite as well as spear you, it would be purely accidental if you ever got hurt by a porky, unless you were as nutty as a friend I had on a hunting trip one time. We were horseback when we glimpsed one of the spiny devils rocking along a talus slope in the pinioned mountains of northern Nevada.

"I'm going to rope that critter, take him back to camp and tame him," said my friend, who must have been deserted by any logical reasoning.

He shook out a loop and on the second try had the quill pig snared by the middle. He somehow managed to get the porcupine wrapped up in his slicker without any help from me. Then he climbed aboard his horse, gingerly holding what would soon be a very heavy porcupine an arm's length away, in an already well-punctured slicker. That horse just didn't like porky smell at all. He kept looking back at the strange critter wrapped in oilskin and snorting his uneasiness.

"If you don't get rid of that thing pretty soon," I growled, "you're going to get piled."

Just about then the frightened horse shied against a pinion tree pushing the prickly porky against its shoulder and my pard's chaps. Let me tell you that big, bay hunk of horseflesh unwound. My friend dropped his catch, grabbed for the saddle horn and got a handful of dirt. Porky escaped and my buddy had nothing worse than a well-peeled arm and a sprained ankle. It was the only time I ever knew of a porcupine spraining anyone's ankle.

Later one of the nosy rodents visited our camp and chewed a sweat-stained cinch in two, and we didn't

have an extra. I always kidded my partner that it was probably the same one he turned loose.

An episode occurred at our camp in the Modoc National Forest one time that could have been far from pleasant. Every night some critter kept gnawing away around our shelves of grub. We just had a tent fly stretched above us, and were sleeping only a few feet from the shelves. One night the critter was particularly noisy, and I reached up to give the loose shelf a shake and scare away what I presumed to be a wood rat. I knew when something landed in the darkness with a rattling thud very close to my feet, it must have been the biggest wood rat ever. I snapped on a flashlight in time to see old man pincushion unhurriedly retreating. I still have unpleasant dreams of someone jerking porcupines quills out of my feet with a pair of pliers.

A Canadian lumberjack once told me porcupines emitted a weird cry, rising then dwindling down the scale. I was inclined to salt the story down. Yet, every time I was camped in the western mountains and heard an unfamiliar cry at night, I would proceed to investigate. I became acquainted with the calls of many species of owls and night birds. Sometimes I stumbled over rough mountains at night chasing calls I never caught up with. A number of times both day and night I met porcupines that would chatter their teeth apparently in fear or warning, but no callers.

My night finally arrived while on a fishing trip one fall on the Scott River in Siskiyou County, California. Through the tent door I heard a ghostly cry rise and dwindle away. I grabbed the flashlight and picked my way over the rocks barefooted. In a little willow thicket I found the source of that unearthly wail—a young porky.

Our California Indians soaked and dyed porcupine quills weaving them into beautiful designs on clothing and moccasins. Certain Southwestern Indian tribes looked upon the porcupine with spiritual respect. Northern trappers like to eat them. The Forest Service cusses them mostly, and sportsmen discuss them. No matter what you think about the quill pig, you'll have to admit he's quite a critter!



## Poison Foliage

(From page 21)

as poison oak, but is occasionally referred to as poison ivy or yew. The most common growth habit of the western poison oak is in the form of a rank upright shrub with many small woody stems rising from the ground. "Leaves three, let it be" also applies to this plant.

Poison sumac, fortunately, is restricted to swamps, lake shores and banks of streams where waters are acid, clear or coffee-colored, and where soil is waterlogged.

It is a tall shrub, something like a slender tree, with compound leaves. A row of pale green leaflets grows on either side of the red-ribbed foliage stalks. Because its leaves may brush against arms and face, poison sumac is probably capable of more injurious effects than poison ivy.

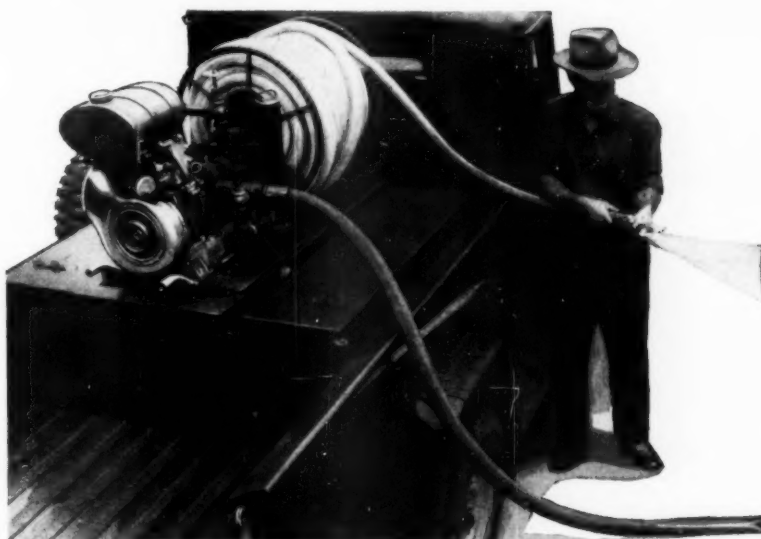
Both poison ivy and sumac bear small clusters of white berries which remain fresh-appearing far into winter months. Oddly enough, the ripe berries are rich in fats and lack poisonous properties of the foliage, stems and roots.

Poisoning from these plants results only from direct contact. Neither wind nor smoke nor rain will transmit the poison to your skin. Walking close to these plants on a warm day is harmless.

Handling shoes, boots and tools that have become contaminated in ivy-infested fields frequently causes poisoning. Those objects may retain ample poison for weeks to cause serious itching. No one is completely immune to these plants.

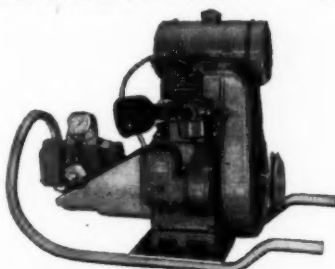
The most effective way to prevent poisoning from the plants is to avoid contact with them and after establishing their identity to eradicate them. There seems to be no absolute quick cure for ivy poisoning for all individuals. Remedies may be helpful in removing the poisonous principle or rendering it inactive and for giving some relief from the irritation. Mild poisoning usually subsides within a few days, but if the inflammation is severe or extensive a physician should be consulted.

Self treatment with home remedies or patent medicines has its dangers because the symptoms of ivy poisoning may be confused with those of other conditions and harm may be done by improper treatment. In all cases the safest procedure is to consult a physician.

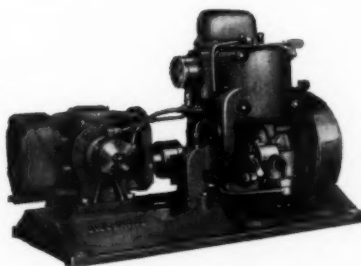


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## Dutch Oven Cooking

(From page 11)

—go fishing, or hunting or whatever you are itching to do. When you return to camp, supper will be ready. If you don't return until tomorrow, it will still be delectable and piping hot.

The slow, constant heat of the fire-pit cooks meat and vegetables to the same degree of succulency. Even if left overnight, potatoes will not become soggy. The tightly covered kettle imprisons every smidgin of flavor; meat cooks so tender it falls from the bone.

Meat and vegetables may be cooked in much the same manner without a Dutch oven—but much of the juice and flavor are lost without its iron-clad protection. The firepit for this type of cookery need not be as large as for Dutch oven cuisine—about two feet deep will suffice. Prepare meat and vegetables as outlined above. Wrap them snugly in aluminum foil or parchment paper. Rake coals from pit and place a well-soaked piece of burlap in the pit bottom. Place food parcel on burlap. Cover with a piece of sheet metal—the side of an oil can will do nicely. Then cover with coals and seal with dirt. Allow at least three to four hours cooking time.

For top-of-the-stove cooking, the Dutch oven should be pre-heated until it is moderately hot. Sear meat on both sides. Then cover and allow it to cook for an hour. Add vege-

tables and continue cooking until meat and vegetables are tender.

When used on top of the stove as an oven, care must be taken to keep the heat even and not too hot. Make biscuits by your usual recipe and place them on a pie or cake pan which will fit into the Dutch oven. Pre-heat your kettle with the cover in place. When it is moderately hot, place your pan of biscuits inside and replace the cover. When biscuits are baked through they may be turned over so that the upper crust may brown.

To bake a pie crust in a Dutch oven requires a degree of finesse. Mix pie crust, using either a ready-mixed product or the following recipe:

2 cups flour  
1 teaspoon salt  
1/4 cup cold water  
2/3 cup shortening

Sift flour and salt into bowl and cut in shortening with knife.

Stirring with a fork, add water in dribbles until dough holds together. Divide dough into two parts (for a single pie, recipe may be halved), and roll out. Fit circles of dough onto outside of inverted pie tin and prick with fork. Place the pie pan, up-side-down, in pre-heated Dutch oven and bake it over a moderately hot fire.

After about ten minutes take a peek.

If the crust edge is browning too fast, emergency methods must be taken. Remove the crust from the "oven" and fit a second pie tin over it in an inner tin-crust-outer tin sandwich. Loosen crust from the first tin with a knife. Invert the "sandwich" and the pie shell should drop neatly into its new container. Replace crust in the Dutch oven and bake until brown on the bottom.

The baked pie shell may be filled with prepared chocolate or butter-scotch pudding or, if you have fresh lemons in camp, you may wish to try the following lemon filling:

Cook and stir in saucepan until thick and smooth:

2 tablespoons flour  
3 tablespoons water  
4 egg yolks  
1/4 cup sugar

Cool these ingredients. Add:

Rind and juice of 1 large lemon  
1/8 teaspoon salt

to: two egg whites, beaten until stiff. Fold second mixture to cooked custard and fill pie shell.

Unless whipping cream is available, drop a small can of canned "cow" in the creek to chill for an hour or so. Pour into a bowl and whip with egg beater until fluffy. Add sugar to taste along with a bit of scraped lemon rind. Spoon onto filled pie shell.

## Rain From Your Shade Trees

(From page 15)

go unnoticed on a fresh, green leaf. At any rate, the leaves of the heavily attacked trees may turn color, many of them falling off. This drop of the leaves may even take place in early summer and be sufficient to affect distinctly the appearance of the tree or shrub and reduce its shade or attractiveness.

This is particularly true of many of our maples and willows that prematurely lose their leaves in late summer or early fall. Aphids multiply very rapidly, producing a number of generations during a single season. The elm-bark and pine-bark aphids are notorious for their formation of white woolly substance on the trunk and branches of the host tree.

A few of the more important species of aphids are commonly

named by the host trees which they attack, such as woolly alder, beech blight, elm cockscomb gall, woolly elm bark, pine bark, pine leaf, white pine, poplar vagabond, and eastern spruce gall aphids.

Scale insects are recognized as small shell-like mounds varying in shape, color, and size, one to eight millimeters in length or diameter. Male insects in this group are usually winged, but females are entirely wingless, and it is usually the latter we see massed along the twigs, branches and trunks of trees. Most of the scales when squeezed exude a solution varying in color from yellow to red and brown. Like the aphids, the scales are not observed to move, and some species, due to their shape and color, are mistaken as outgrowths

of the twig or bark of the host tree.

Also, for each genus of shade trees there are usually two or more species of scales as indicated by a few of the important common names, such as beech, brown elm, European elm, holly, juniper, magnolia, maple leaf, cottony maple, gloomy (maple), obscure (oak), pit-making, pubescent oak kermes, yellow oak, oystershell, pine-needle, San Jose, Terrapin and tuliptree soft scales.

The gloomy scale has been such a menace to soft maples in the South that it has practically eliminated these trees for shade or ornamental purposes. Widespread attacks of the tuliptree soft scale, *Toumeyella liriodendri*, Gmel., within recent years has brought numerous complaints from tree owners in an area embraced par-

ticularly by New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia and West Virginia. Attacking principally our prized broadleaf, this scale is also found on magnolia, bay, and capejasmine. Females are dark brown, hemispherical, and are frequently found in crowded masses on twigs and branches of the host. When squeezed, the live scale produces a blood red liquid.

Trees attacked by sap-sucking insects are injured by weakening the stems of the leaves so that they drop prematurely, by causing the foliage to dry up and curl, or by depriving the stems and leaves of their nourishment as in the case of gall formations. Continued severe attacks by these pests over two or three seasons may well cause the deaths of many valuable ornamental and shade trees.

Generally, scales and aphids are kept under control by their natural enemies, chief of which are the ladybird beetles, the larvae of syrphus flies and parasitic wasps. In some years, favored by warm, dry seasons, sap-sucking insects become enormously abundant on shade trees and shrubs. Usually this condition occurs in the Spring and early Summer, although it can occur in the Fall. If you are plagued by such infestations, it is well worthwhile to use control measures, particularly if you are the average home owner whose trees are removed from areas of municipal spraying operations.

One should first cut and burn the dead and heavily infested portions of trees that can be spared without seriously injuring the appearance of the tree or shrub. Then spray the remainder of the tree in early spring just before new growth commences, using a dormant-strength oil emulsion or miscible oil.

When the crawlers are present and abundant, the infested parts of the trees should be forcibly and freely wetted with a contact insecticide consisting of one to two teaspoonfuls of nicotine sulfate (40 percent nicotine), one to two tablespoons of soap flakes and one gallon of water. Dissolve the soap flakes in warm water before adding the nicotine sulfate. A standard product should be secured from a reliable dealer in insecticides and used according to maker's direction.

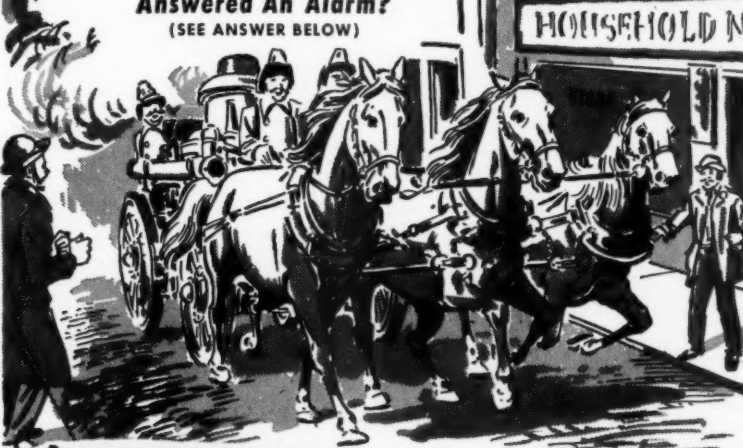
The services of your tree expert firm or local nurseryman can be relied on to furnish complete equipment for spraying large trees and extensive plantings. At any rate, the trees should be watched for recur-

(Turn to page 35)

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## Shade Tree Rain

(From page 33)

ring attacks of pests in the same season, then promptly resprayed. Plain water, thoroughly and forcibly applied under pressure to infested tree parts, will crush and tear loose soft aphids and scales from the tree. Frequent water sprayings may provide sufficient control without using special insecticides.

Trees affected by sap-sucking insects, and those upon which the pests have been controlled, may need mild fertilization and a little watering, especially if the weather is or has been dry. Stop these pests and you will have healthier shade trees, free of that honeydew rain.

## Conservation by Decree

(From page 23)

Service to contribute its maximum effort to the farm forestry program, without trespassing on fields already covered by other agencies. If they do, we may consider that Section II-E-1, which has caused so much alarm, has been superseded.

If, however, in spite of all "interpretations," intentions and new rules, the Soil Conservation Service is actually reduced to impotence in its forestry work, it will then be time to reconsider the situation. In the meantime, let's wait and see what happens. Incidentally, the Soil Conservation Service could do a much better job in farm forestry than it has done in the past. Perhaps, it will respond to a new opportunity with renewed vigor and much greater efforts.

There is one other point in Mr. Bailey's article that deserves study. This concerns the attitude of philosophy of the Forest Service on the matter of forest regulation. Mr. Bailey indicates that the Forest Service has not altered its position that the solution of the nation's forest problems is through federal legislation to force farmers and other woodland owners to conform to cutting standards approved by the Forest Service. Many professional foresters disagree with the Forest Service in this matter.

This kind of philosophy is completely at variance with policies of most other bureaus in the Department. Most of them believe that education, assistance and cooperation,

(Turn to page 40)



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**Link Pack Sets**—new two-way radio-telephone units which can be either hand-carried or back-packed. Pack Set Type 3035 is a complete portable assembly for operation in the 25-50 Mc very-high frequency, while Pack Set Type 3036 is for operation in the 152-174 Mc very-high frequency band. Weighing only 19 pounds these Pack Sets are ideal for fire and police service and for forestry and conservation groups. Link Radio Corporation, Dept. A. M., 125 West 17th St., New York, N. Y.

**Lauxite UF77A**—new cold setting urea resin glue developed to answer storage problems of woodwork manufacturers during hot summer months. It has been laboratory and field tested successfully for ordinary cold gluing and high frequency gluing. Monsanto Chemical Company, Springfield, Massachusetts.

**Weed Sprayer**—for roadside weed control and other spraying needs. Equipped with two hand spray guns, it can be operated by one man. Through a double by-pass valve, it can be changed from a low-pressure to a high-pressure sprayer. Pump volumes range up to five g.p.m. at 500-pound pressure. The machine is equipped with a propeller-type power agitator, and spray-booms designed for individual needs are available. California Orchard Heater Company, Pomona, California.

**Galegaze**—anemometer that measures wind velocities up to 75 mph with accuracy that never varies more than two percent. The rotor unit is mounted outside on a pole or convenient roof and the meter can be located inside up to 200 feet from the rotor. Fifty feet of wire are supplied with the instrument which is housed in an attractive solid walnut case. Batson Electronics, Inc., 1031 S. 27th Street, Omaha, Nebraska.

**Lawn Dinette**—unpainted, all wood table-and-bench combination for dining outdoors. Available in three sizes, it seats from ten to 14 people. Furnished knocked down, it can easily be assembled in 60 minutes, with the aid of an ordinary screw driver and wrench. Cramer-Krasselt Company, 733 N. Van Buren Street, Milwaukee 2, Wisconsin.

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## Man on the Moose

(From page 20)

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I have predicted. This might be the time."

"The man's a walking gold mine," Jules said judiciously. "He seems to have the secret of perpetual age, he can talk with the beasties and the blasted bugs. We could make a fortune if we could only get him under contract."

We agreed with the surmise. But, I reminded them of Mr. B's lack of interest about such a mundane thing as money. "Besides," I added, "if he is really 125 years old, he's a little too wise to let some city slickers get the best of him."

"There's another thing," Jules exclaimed, getting up and pacing the floor. He carelessly stepped on Monster's tail and it took a few minutes to comfort the beast. When the commotion had ended, Jules continued: "With his ability to call game, he could make this the best hunting and fishing camp in the world! We could sell it for a thousand times what we paid for it."

The potentialities were amazingly lush and attractive and we explored most of them before we retired. Then someone remembered the parting words of our visitor. He wanted to talk with us about buying the camp. Why? Probably desired to establish a vast game preserve, a part of his laboratory for nature experiments, we decided.

In the morning, Doc and Jules were whipping Pebble Brook at dawn. Bob and I ate breakfast moodily and thoughtfully. Monster had gone with Jules and Doc and I suspected that he would not prove helpful. Bob wandered over to the recording machine, switched it on, rewound the wire. "How would you like to hear how the affair recorded?" he asked. I was curious. I did want to hear it.

I was rather astonished at the recording. It was a very good job and I said as much. My compliments were interrupted by the sound of a terrified wail from the absent Monster, a barrage of robust oaths and anguished shouts from the absent brethren. We ran to the porch. Monster literally spurted from the path leading into the clearing. Close on his heels came Doc and Jules, neck and neck. As they reached the lodge, we witnessed another mass

invasion—skunks and porcupines, seemingly all of the transient visitors of yesterday. The mixed crowd moved toward the lodge.

Jules was furiously angry as he burst into the porch sanctuary. Doc was puffing heavily. "That damned Butternitt double-crossed us!" he snorted. The lodge was completely surrounded. The animals stood watchful, puzzled. The super-fat porcupine paced up and down in front of the immobile ranks of animals, stopping ever and anon to chatter a little. The animals apparently were in complete amity.

"Don't blame Butternitt, blame our radio genius," I informed them. "He just played the recording of what happened yesterday, and it brought them in, for they recognized their master's voice. Suppose, Bob, you now give them their clearance papers—put on the noble and compelling voice of K. V. Butternitt, telling them to get out of here. You have had your fun. Let's get it over; I'd like to do a little fishing myself."

Bob shook his head sadly. "I got so excited when he talked to them I forgot to record it," he announced.

Seven hours later, we were still discussing the matter but with a trifle more heat than when it started. Bob was sullen under the storm of abuse, deeply resented it when Jules suggested that he go out in the yard and discuss the matter personally with the patriarch porcupine.

We were neatly penned in, no question about it. No human being would have the courage to try to pass that impenetrable and deep barrier of skunks and prickly porcupines. "Suppose they got to fighting between themselves!" I remarked, and we all shuddered at the dire prospect.

About five, we heard the far-away strains of radio. Red Barber's cornpone accents explaining that Rex Barney had just walked three Giants in a row, became clearer and louder.

"Ah, the good Mr. Butternitt approaches," Jules said, relief in his voice. Then, just as Stanky came to bat, Barber's voice stopped abruptly. It was evident that Mr. Armitage had approached the clearing and that he had seen the animal barricade. We rushed to the porch and saw the old bull moose throw up his



head. We saw an astonished and indignant K. V. Butternitt standing in the *howdah*, surveying the scene. We heard his voice and the fat old porcupine trotted slowly toward it. We heard Butternitt and the patriarch conversing at length. The old chap waddled back, climbed a stump and chattered to his crowd at length. Again they marched away, solemnly and with sullen dignity.

Mr. Armitage paced sedately to the porch. K. V. Butternitt did not dismount. He glared at us and he was not pleased. His face was red, but his voice was calm and precise.

"I assume that Mr. Sutherland, your radio expert, has a recording of the calls made yesterday," he charged. We nodded our guilt. "Mr. Sutherland will fetch that recording and the device out here and place it on the ground," he commanded firmly. Bob obeyed meekly and retreated before the fire in the old man's eyes. He spoke a sharp quick word to Mr. Armitage. The big moose lifted a gigantic foot, brought it down on the recording machine and it split into a jumble of wire, tubes and shattered plastic.

Butternitt regarded us sternly. "I resent your effort to preserve my voice, to parade my harmless hobby," he snorted. "In addition, you have hurt my prestige with my animal friends. Worse, you have confused them, a cruel thing to do. It must not happen again! Now, how much did you pay for this property—and how much do you want for it?"

Jules craftily named a price several thousand dollars more than we had paid. Butternitt weighed the price for a minute. "That is too much," he said. "I'll make you a fair offer." He did. It would have given us a decent profit on the joint investment, but for some obscure reason, we rejected it.

He nodded. "Well, I'll get it at my own price eventually, gentlemen. Do not forget that I have had some experience in the world of business. I now give you fair warning. I want you to leave camp within two days. I shall keep watch over you, for I can't trust you. You would kill defenseless animals, I am afraid. You would shoot birds, you would want-only destroy. I will not be sorry to see you go. Yesterday, I hoped we could be friends and good neighbors, even if you would not sell your camp to me. But, you betrayed me!" His voice was indignantly shrill. He reached for his jug and held it to his lips for a long time.



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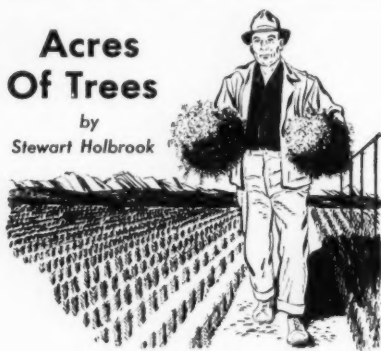
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## Acres Of Trees

by  
Stewart Holbrook



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Farmer Levin's headquarters, a group of bright buildings set like a star in the tremendous dark woods, is a symbol of timber crops without end, a sight to cheer any soul. Watching the seeds tumbling from the cones will stir the least imaginative. They run 40,000 to the pound, yet in every seed is potentially a Douglas fir that will rise 250 feet and fatten to six feet diameter. Oscar Levin won't see his crop ready for harvest. But tree farmers are given imagination. They live on visions of enormous trunks standing thick on every last acre to the rim of the horizon and the end of time.

\*\*\*\*\*

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He clicked a word to Mr. Armitage. "I suggest that the exodus be timed for high noon on Thursday," he said gently as the moose moved away. "A car will be waiting for you."

We were frankly angry and disturbed at the mandate. We argued heatedly that it could not be enforced, that the property was legally ours. There was a little recrimination, too, about our non-acceptance of Butternitt's generous offer. The discussion ended as we admitted that we had all been in favor of turning down the offer.

"Look outside!" Doc suddenly yelled. We rushed to windows and out on the porch. We were being picketed by at least a hundred adult black bears. They marched in a great circle, spaced evenly. Their jaws slavered and their eyes were kept alertly in the direction of the lodge. Monster came to the porch, took one frightened look, whimpered like a lost soul, retreated under the nearest bunk.

We gloomily recognized defeat. We were besieged most effectively. Bob essayed a brief attempt out of doors to rescue the smashed wire recorder and he was rushed by six stalwart and purposeful bears and just managed to get inside before they reached him. They growled their displeasure and Monster was reduced to hysteria, almost matched by Bob.

Jules turned from a window. "He has his air patrol on guard, too," he said dryly. A dozen flocks of circling hawks and eagles watched for any movement from the lodge. K. V. Butternitt missed no possible defense, it seemed. The only bright spot in the day was when a bear, evidently a trusted messenger, walked majestically up to the porch and deposited on the steps a familiar brown jug and walked away beaming genially.

We rescued the jug, smelled of it, tasted it. It was the authentic ambrosia, the tonic that made K. V. Butternitt what he was. We drank with considerable vigor and some gratitude. Toward the end of a somewhat hazy and happy evening, we even fell to drinking ribald toasts to the continued good health of the donor.

In the morning, the pickets were still on duty. We felt rather badly, due to too much tonic. "We are supposed to leave here at high noon," Jules argued. "The minute we step out into the yard, we will become

meat for the bears. I'm against it! I'd rather stay here and starve." We agreed. The prospect was not pleasant.

But, at eleven, a message arrived. The messenger was a regal cock grouse, and he carried an envelope in his bill. He alighted on the steps to the porch, dropped the envelope and air-borne in a great drumming of wings.

"You will depart on the stroke of 12. The bears will not harm you, but they will guard you down to the old wood road to the main highway, where a car will be waiting you," the missive curtly informed us. It was formally signed by K. V. Butternitt.

Doc insisted on bringing along his big trout. Monster resolutely refused to leave with us under his own power. He shivered and howled at the prospect. I compromised by dumping him into a pillow slip which I slung over my shoulder. The minute we stepped from the lodge, the bears ceased their endless circling, formed two formal ranks, about six feet apart. We walked timidly down those ranks and the bears wheeled and walked with us down the old woods road. Jules wished he had a camera. I wished Monster didn't weigh so much. Overhead, the eagles and hawks kept ceaseless vigilance, silent and watchful for any attempt to escape.

As we reached the highway, the birds and bears disappeared as though by magic. The car was waiting. Far back in the woods we could just see the form of Mr. Armitage. We saw K. V. Butternitt wave a casual hand in farewell, hoist his jug for a stirrup cup in our honor.

Protesting, howling and whining, Monster had been tethered in the express car, where he had promptly bitten the hand of the expressman who had tried to comfort him. On the train, we talked but little. On sober second thought, we decided that the matter of K. V. Butternitt be kept a closed secret.

"People might say we are liars. They might even suggest that we had been drinking!" Jules warned. Doc rode in a day coach. The trout smelled rather high, and he was refused Pullman accommodations. It was his firm intention, he said, to take the trout directly to the taxidermist on the arrival of the train. Considering the stench, a wise decision!

He telephoned me the next day.

"Say, I got us an offer for the camp," he said. "I suggest we take it. We can break even. When I took the trout to the taxidermist, I ran across an old friend of mine, Max Handemann, president of a chemical company, a sportsman from away back. He was impressed with the size of the trout, wanted to know where I had caught it. I told him the camp was for sale. I told him about it, and we did a little dickering. He makes us a firm offer. What do you say?"

We held a meeting in my office, decided to accept the offer. Bob was still concerned. "Right this very minute, I got me a new client who would snap up our friend Butternitt for a television show. He'd pay any price for him, I'm sure."

The meeting marked the formal transfer of Monster to Jules, who had a foolish affection for the dog. I had taken Monster home and he had been very happy until he ventured into the library where the head of a bearskin rug met his startled gaze. From then on, he was gibbering idiot. I was more than happy to be rid of him, until I remembered that Jules had a large moose head over the mantle of his living room, a detail I thought advisable not to mention.

The meeting ended on a slightly bitter note. Bob advanced the specious theory that he should be recompensed for the loss of his valuable wire recorder, a proposal that was not well received by the three other members of the organization.

Three months later I received a very cryptic note from Doc. "You will probably be interested in the enclosed," he had written. "Please pass it on to the other brethren."

Attached was a letter from Max Handemann, written more in sorrow than in anger. "The gnats were pretty bad," he had written Doc, "but we tried to get in a little fishing. You won't believe it, but every time I tried to make a cast, a hawk would dart down and grab the leader. I couldn't get in a single cast, believe me! My wife got chased by a big buck deer, and every night a dozen lynxes would sit outside the house and howl so much we couldn't get a wink of sleep. The porcupines ate the tires off my car, and the wife's Boxer got mixed up with some skunks. We were glad to get away, believe me. At the station I met a queer fellow who said he was looking for a hunting camp. I gave him a big sales talk, just like I was sell-

ing on the road again. I must have been pretty good, for he offered me a price, sight-unseen, that gives me a very small profit. We signed the papers and he paid me off in cash just as the train pulled in. Was I glad! But, my dear friend, I suffered during this experience, I suffered deeply. Besides, I think you owe me, just as a gesture of good will, for four new tires.

"The name of the poor old man who bought the place was Butternitt, probably a distant and good descendant of the famous K. V. Butternitt, of the firm of Armitage & Butternitt, once the most powerful chemical concern in the world, back in the 1850's, a thing you wouldn't remember. I sort of feel sorry for the old man, but business is business, I always say. That's why, my dear friend, you owe me for four new tires."

I dutifully forwarded the letter to Jules. I grinned as I did it. Personally, I didn't feel sorry for K. V. Butternitt. I did, however, feel sorry for Max Handemann, if he was optimistic enough to think that Doc would pay for his new tires.

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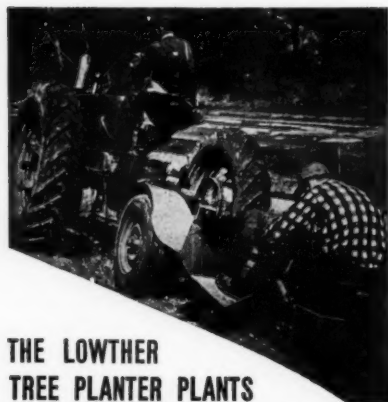
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## Conservation by Decree

(From page 35)

rather than coercion, is the way to deal with farmers and other land-owners. Their premise is that farmers will take the necessary steps to force the recalcitrant minority into line, once they understand the public necessity for coercive action.

The Soil Conservation Service, for example, long has recognized that farmers will accept their rightful responsibilities for conservation if given the opportunity. Soil conservation districts, organized by farmers and managed by them, is the device whereby farmers and ranchers operate their own conservation program—and effectively. The conservation results that districts have achieved with the help of technicians assigned

to work with them is ample proof of the validity of the philosophy under which most bureaus of the Department operate.

Perhaps, the Soil Conservation Service, because of its past success in working with farmers and its intimate association with interrelated farm problems, is in a better position to guide a farm forestry program than is the Forest Service. Perhaps the *farm* part of farm forestry is at least of equal importance to the success of the program, as the forestry part. In any case, it must be Agriculture that accepts forestry, not forestry that is imposed on Agriculture.

## The Invincible Skypilot

(From page 28)

high altitude record for this height-happy nonconformist of the North American flower family.

Of the 20 or more varieties of *Polemonium* occurring in the United States, the skypilot is the rarest and the sturdiest, but from the standpoint of beauty it is no prize winner. In comparison with many of our more showy wildflowers, it is modestly colored. However, like most high altitude plants, it has intensely pure or delicate colors and to the adventurous who come upon it in its high haunts its skyblue petals glow with a brilliance unexcelled by any lowland flower.

The enthusiasm of these devotees is no doubt induced by the plant's tenacity and ability to survive amid the bleakest surroundings. At elevations above timberline, vegetation is scarce. Plants must be especially adapted to survive the harsh conditions which prevail at such heights. First and foremost is the problem of the elements. While the heat of summer reaches 85 or 90 degrees with regularity, nightly temperatures often drop so low the camper is not surprised to find frost on his sleeping bag and ice in his drinking water.

Obviously, plant survival in such variable conditions calls for unusual traits. Because of adaptation to the special conditions of cold and wind prevailing at such heights, the plants often have their leaves and inflo-

rescence covered with a mat of woolly hairs and the stem enveloped by a coat of withered leaves. Despite the skypilot's delicate appearance the permanent portion of plant body is extremely condensed at or below the surface of the ground and is therefore well adapted to withstand severe fluctuations of temperature. Another extraordinary feature of the *Polemonium eximium* is that it is a perennial living in a dormant state below the ground with the root of the plant actually surviving the long, cold winters that characterize the High Sierra.

For adaptation to severe conditions, the skypilot is probably rivaled only by the celebrated Edelweiss which is so highly prized by European mountain climbers. This sturdy flower has its head protected by a rosette of spreading bracts and its stem covered with a thick, woolly coat.

Unless destroyed by some accident such as a landslide or an avalanche, the skypilot will survive to propagate this indomitable family. As the snow-line recedes with the approach of summer, the plant begins to peep forth, shaking off the torpor of a winter's dormancy. Presently the weather-proof skypilot resumes its regal preeminence, putting forth a garland of skyblue flowers to delight botanists and mountain lovers, and lending color and light to its wild surroundings.



## Tree Farm Anniversary

(From page 14)

products. By 1939 the march was on.

In that year the Weyerhaeuser Timber Company decided to install an intensive reforestation and fire control plan on the 64,241 acres it owned in the Clemons area. One purpose was to develop a pattern that could be applied to other properties. Intermingled small ownerships and state and county forest lands came naturally into the plan. By 1941 a total of 130,000 acres was organized for operation as a forestry unit that had "complete protection" as its main objective. The high management standards called for a special name—"tree farm."

The acreage of the tree farm proper and that of other ownerships under the plan has grown steadily through ten years. Weyerhaeuser ownership now takes in 154,861.3 acres, with other private and public lands making a total of 327,040 acres where trees are growing and coming back on land that is practically fire free. The exact number of man-caused fires on Clemons Tree Farm in ten years is in doubt because of land acquisitions, but it is less than 20. They were knocked out in short order.

There are four lookouts on the Clemons area, centers of a 312-mile network of fire roads and 20 miles of telephone lines. Fire guards have 15 two-way radio sets, 57 portable fire extinguishers, three miles of fire hose, among their equipment.

On Clemons Tree Farm itself water is stored in 30 reservoirs for the five pumper trucks and the portable pumps. Two bulldozers, two crew trucks, a grader, four small trucks and other machines implement the protection program. All this has kept the acreage burned far below the "allowable loss" of one-fourth of one percent of the tree farm area per year from fire. Cooperation with sportsmen's groups and recreationists has contributed to the protection record.

Since 1940 Weyerhaeuser foresters have planted 4,190,000 Douglasfir seedlings on Clemons Tree Farm. The stock is from the Forest Industries Nursery. These plantings are to fill in between the lands that nature has reseeded.

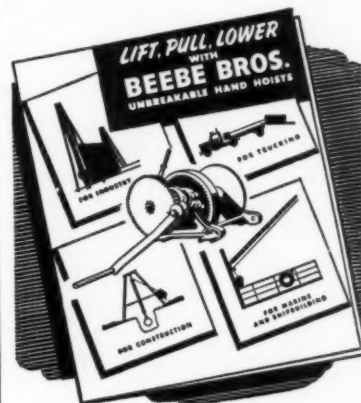
A steady, methodical increase of acreage, roads, equipment and personnel under Clemons Tree Farm forest management is the best evidence

of the value of the idea that was put to work as an experiment in 1939. Such acquisition and expansion call for annual investment without returns for a period of many years. Grays Harbor County and its communities share the faith of the private owners of Clemons Tree Farm in the future of tree farm forest practices and management. The fact was vitally demonstrated in the June 23rd celebration at Montesano.

Representing the South and acting as master of ceremonies for the day, Stanley Horn reminded the Westerners that Henry Hardtner had set up a forest management plan in Louisiana as early as 1922 that was tree farming in all but the name. Of course, an imposing number of similar examples can be cited, North, South, East, West. However, they did not form a movement. Clemons Tree Farm did start a movement. It dramatized the fact of change from old forests to new, from timber mining to timber cropping, in a term that the general public could understand. And it appealed to the logger who had realized that tree growing instead of timber prospecting was the way of the future in his business.

(Turn to page 42)

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In 1950, foresters on the staff of the Forest Conservation Committee of the Pacific Northwest Forest Industries, inspected the 3,000,000 acres of West Coast tree farms which had been certified before 1949. With Chief Forester W. D. Hagenstein in charge, they checked on ownership stability, protection setups, logging methods, logging leftovers, and plantings on non-stocked patches.

Fires in 1949 struck only 7/100 of 1 percent of tree farm acreage, the inspections showed. The allowable annual burn on the West Coast to repeat, is one quarter of one percent. Of all tree farms of the region in the year before inspection, burned acreage was less than one third of the limit.

The fire record on the tree farms was not a matter of luck. The average owner's expenditure per acre for protection was 31 cents compared with a general regional level of 10 or 12 cents. Nearly 153,000 snags, or standing dead trees, were felled on the West Coast tree farms in 1949. Close to a million dollars' worth of four-wheel drive pumbers, tank trucks, portable pumps, hose and lookout towers were added to the protection equipment.

One tree farm on the Oregon Coast borders the northern edges of the sea of snags left by repeated fires in the Tillamook. The company has cut a two-mile swath along six miles of its southern boundary, completely clean of every dead snag or stub over 15 feet high. A surprising amount of merchantable logs, pulpwood and veneer blocks was salvaged from this *cordon sanitaire*. In 1949, 11 additional tree farms were equipped with radio communications—the latest and an extremely effective aid in fire control.

The strong movement in the Pacific Northwest toward using the leftover wood piles of former logging days is plainly reflected in the management of its tree farms. In 1949, 44 million feet of sawlogs and 21 thousand cords of pulpwood were salvaged by relogging old slashings.

On the average industrial property in the Pacific Northwest, with the usual clearcutting by blocks and the usual fire history, natural seeding starts a satisfactory crop on 85 or 90 per cent of the cut-over land. Every tree farmer has a plan for re-stocking whatever idle land it may include—the old burns and other spots where natural seeding has failed. In 1949 the tree farms planted 10,590 acres with seedlings at an average cost of \$16.21 per acre. An additional 4,204

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acres were seeded directly by broad-casting from helicopters at a cost of \$5.36 per acre.

A new practice in reforestation was begun vigorously in the same year. This is the scattering of bait on areas where seed trees are adequate but the hungry and busy little rodents leave little or none of the toothsome Douglasfir seeds for germination. Biologists have found populations of 32 white-footed mice per acre and estimate that each mouse will consume a pound of Douglasfir seed in a year if he can get it. Furthermore, the fatter Mr. and Mrs. Mouse become, the less disposed are they to any notions of birth control. This simple fact doubtless accounts for situations over which foresters have torn their hair, where land within easy range of seed-bearing trees has failed to restock for an unconscionable time. The new tree farm technique is baiting such areas, at a cost generally less than a dollar per acre; and thereby upsetting nature's balance long enough to give the seedlings a break and start a new forest.

Under present planning the great bulk of the non-stocked and poorly stocked land in today's tree farms will be reforested within the next fifteen years.

The greatest asset of the West Coast tree farms to the region is the 90 trained foresters who direct their management and the 154 other forestry employees at work in protection and technical operations. Many more foresters are engaged in logging, engineering and log production.

## Davy and the Terror Trees

(From page 26)

on trips like this mainly for company.

The Oregon wolf trees are nowadays remembered by name only (Uncle Ben went on to tell). There were never so many of them. Only in the swamps along the Lower Columbia did they grow, sink, swim, bark, glower, lurk, slaver and creep. The noble and swift traveling tree of old Oregon was no kin to them. They were more like the swamp sogggers of aforetime.

You've heard how Davy Crockett cleaned the snakes out of the Oregon country. That's simon-pure history, too. It was after it that Davy came to explore the Lower Columbia, the tidal river.

The Indians had warned him well

Under rules of the Conservation Committee, every tree farm is inspected by one of its foresters every two or three years. As a result of these inspections, the Tree Farm Certificates covering 26,439 acres have been canceled because the owners were not living up to the essentials of good forest management. After the inspections of 1950, each tree farmer received a confidential report from the Committee's foresters, commenting on the strong or weak phases of his management and offering suggestions for its improvement.

The one hundred and four tree farms in Western Oregon and Washington on January 1, 1951 covered 3,677,710 acres. That is close to 30 percent of the private forest land in the region. Another half million acres is moving into the same type of forest management and headed for tree farm enrollment sooner or later. In ten years, the West Coast tree farms are still far short of perfection; but they are leading a strong and promising advance in forestry at the grass roots.

The Clemons Tree Farm pattern has been adhered to on the West Coast. Clemons likewise exemplifies the objectives and programs of tree farm management in other forest regions of the country.

All together, we are going forward on the tree farm way of forest industry in America. And the motive power of the tree farm movement remains the power of the land to grow trees.

Tree Farm Day in Montesano was indeed a day to celebrate.

on the terror trees of the backwater sloughs and the swamps. Davy was well-posted, likewise, on the accounts the Lewis and Clark men and other explorers had brought back about the wolf trees—or "tree wolves," as David Douglas later described them.

The Indians claimed the critters could not be shot, trapped, burned, hung or hobbled. When all was said and done, Davy Crockett couldn't be sure what they were at the start. But he soon found out for himself. Here is what he found.

One of these wolf trees—or tree wolves—would stand alone among swamp trees and bush, looking like nothing but a mossy, mean scrub of a hemlock.



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The wolf tree stood on his head to hibernate, for simple sleep, and to keep a trap set for swamp rabbits, slough frogs, or anything else that might come prowling around a tree. Indians told of seeing bear bones in a circle around a flat in the mud which showed that a wolf tree had stood there and made a meal.

The seeming branches of a standing wolf tree were really knotty hide, with stubs, warts and spiney bristles which did appear to be branches when the wolf would stand on his head, with paws wrapped around him and tail standing high. That tail was as bushy as the crown of any conifer. But it had the power to crack down and split the skull of any elk that would happen to be coming down for a drink. Its tip would often wave 20 feet above the flat of the head.

Sometimes a wolf tree would bark, but not often. They would howl and whine only in big winds, and then try to sound like true trees.

Davy Crockett learned all these things and much more by careful observation, just as David Douglas did later with the big tree that was named after him. Then, by giving thought, young Davy came to a heap, a regular pile, of conclusions.

Wolves were wolves, was the conclusion on the top of the heap. That meant they were close kin to dogs. Sometimes wolves thought they were dogs, and sometimes dogs thought they were people! It was all a circle of kinship. What it came to was that all around the circle there was the power of kindness in the heart and shame in the soul.

Paddling his lone canoe up the river into the slough country, Davy recollected old wolf dogs and dog wolves of his and how he had managed them. There was Teazer, quarter wolf. And Big Grim, quarter dog. Porcupine and Growler, each half and half. Holdfast, none could tell. And Death's Hand—"a hull wolf," mused Davy.

Death's Hand was a long way the oldest dog or wolf alive when Davy came by him. He was 80 years old

at his end. Even then, he'd have lived on if Davy hadn't forgotten to give a command. Death's Hand would do nothing without a command. One sleepy summer day Davy ordered him to dive into the Mississippi, then forgot to command him to come up.

Big Grim had been so all-fired proud that when Davy caught him stealing geese and shaved his face for punishment he wouldn't go anywhere except by walking on his hind legs for a month—using his forepaws to cover his shaved face all the time.

And youths Davy remembered the wolf pack he had tamed some seven years back and taught to drill for him while he played soldier.

So recollecting and remembering, Davy Crockett put two and two together in his mind as he made his way on into the eerie shadows of the sloughs and the fearsome dark swamp lands the Indians shunned as the region of the wolf trees.

Nigh on to sunset time Davy paddled up a likely looking creek. It turned into twilight all around before he had come to the second bend. Right soon he knew he had made no mistake. Sure enough, he was on a main artery of the wolf tree country, if not in the heart of it. And there was no turning back. For down yonder, here and there, something that looked like a scrub swamp tree would tip over, stretch and shake itself, stand up on four legs with boughs dripping like shaggy hair, poke a flat wolf's head out from its butt end, and wag its crown like the tail of Behemoth in Job, which "he moveth like a cedar."

All the way down to the first bend Davy could spy wolf trees slogging to the banks, showing teeth and sniffing. It was a mighty shivery sight, as he always admitted. But from one feature he took heart. The wolf trees slogged slowly. All appeared to be weak in their hindquarters. Davy Crockett reasoned that it was because their blood all ran to their heads while they stood like 'possums, leaving their uppers, or hind parts, benumbed and cold.

When he made night camp Davy left Kildevil, his long rifle, and his powderhorns in the canoe. What he took forth were two items which the Yale traveling trees expedition had left with him. One was a broadax. The other was a rope like the one he'd learned to use from the Cherokee cattlemen back in old Tennessee.

It was still light enough for Davy to take a whirl at a sample wolf tree before putting up for the night. He circled up from the creek through a



grove of swamp oak, then catfooted back for the creek while the eyes of the wolf trees—or tree wolves—were on his canoe and the oaks. Davy picked out the wolf tree that stood most alone and made an Indian sneak up on it from behind, through the bush. Its tail stood maybe 14 feet. At the right spot Davy Crockett took one swing and twirl, and cast his loop.

It sailed high and away as true as grapeshot and dropped squarely on the upended hindquarters of the still standing wolf tree. Davy wheeled, and snubbed up around an oak. Then he reared back, yanked and hauled. The tree came down with a crash, a howl, and then with such growls and snarls, such bucking, pawing and faunching as Davy Crockett in all his wildest dreams had never seen or heard from any tree of this world. But he held on and snubbed the critter home. He was able to do it because his reckoning was right—the hind quarters of the wolf tree were numb and weak from being aloft for so long while his blood ran to his head.

Davy roped the critter down, then proceeded to roach him with the broadax. The poor wolf tree was well-nigh scared out of his bark, he howled, whined and mewed the night long, and could only moan and roll bloodshot eyes so beseeching when Davy Crockett came to him the next morning. Worst of all for the wolf tree, he was fit to die from shame. And no wonder. For with his shaggy hair and bristles like tree boughs all roached away, his face shaved and tail clipped, he was the poorest, meanest, knottiest, wartiest kind of

critter to look at that the good Lord had ever allowed to live on this earth.

He was so humble and contrite, so shamed and broken up, that when Davy Crockett began to show him kindness in the name of the kinship of wolves, dogs and people, that he could only lick Davy's hand while his eyes ran tears.

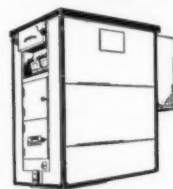
Well, he lived through it. He lived not only to sprout new shag to hide his ugliness but he also lived to serve as a kind of sergeant for Davy in bringing the other wolf trees to taw, making them first into a prime pack of hunters, and finally teaching them to drill, just like the civilized wolves of Tennessee.

It was a long seige of hard labor for Davy, with hardly a particle of fun or adventure in it. It took him three weeks to rope and tame three of the wolf trees at the start, while he worked at building a wolf tree corral and a winter shelter for himself. But Davy stayed with it. By the following spring he had a powerful platoon of wolf trees drilled and ready.

"Let the redcoats come on," said Davy Crockett then. "Now we'll see who keeps the land below 54—40—Rule Britannia or Hail Columbia. Let the redcoats come! . . ."

There was no more to it for this time. Uncle Ben saw something down in the haze and we picked up and rode for it. There was a bunch of beef that belonged to a rancher he knew. Uncle Ben "borrowed" a pair of milkers with calves from it to take the place of the runaways, and we started for home. I was glad of it. I'd lost my hankering for travel in the timber. I was seeing things.

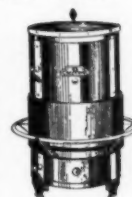
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## NEWS IN REVIEW

**Schenck Grove Dedicated—** Highlighting a triumphant tour, Dr. Carl Alwin Schenck on July 4 saw the unveiling of the stone marker officially dedicating a 40-acre grove of redwoods to his name and works in the Prairie State Park near Orick, California.

Following the dedication of the Schenck Grove, the 83 year old founder of the Biltmore Forest School, first school of forestry in the U. S., visited mills and tree farms in Oregon, concluding this phase of his journey with a trip to Tacoma, Washington and St. Paul, Minnesota, where he viewed operations of the Weyerhaeuser Timber Company.

Dr. Schenck's mid-July itinerary also included a visit to Vancouver. As this goes to press, the doctor, who has been accompanied throughout his tour by S. L. Frost, executive director of The American Forestry Association, plans to return East early in August.

**E. O. Siecke Honored—**The site of the first slash pine plantation in Texas was featured in a tract officially dedicated July 18 as the E. O. Siecke State Forest. Honoring the pioneer forester who for 25 years served as director of the Texas Forest Service, the area dedicated lies five miles southeast of Kirbyville. The slash pine, planted during the early years of Siecke's directorship, is now 25 years old and towers more than 60 feet high.

**Forestry Pioneers Die—**K. Clyde Council, pioneer conservationist, industrialist and former State Senator, died on June 24 at his home in Wananish, North Carolina. An owner of extensive forest holdings in southeastern North Carolina and a pioneer and enthusiastic booster of scientific forest management, the 64 year old Council was a past-president and, at the time of his death, a Director of the North Carolina Forestry Association.

Dr. Harry P. Brown, eminent wood technologist and one of the outstanding teachers in American forestry, died May 24 at Syracuse, New York. Dr. Brown, 64, was head of the Department of Wood Technology, New York State College of Forestry, and is well known for textbooks and other

writings which he contributed to the field of forestry.

**Second Timber Group Here—**

The second group of executives and technicians to participate in an AFA-arranged study under ECA's technical assistance program of timber processing methods, arrived in the U. S. July 16. Representing wood-using industries of seven free nations in Western Europe, the 26 members of the group are scheduled for a stay of about six weeks.

The group was divided into four study teams representing: 1.) containers and packaging; 2.) cooperage; 3.) wooden ware and wood turning; 4.) laminated wood and wood preservation. Team 3 will visit plants in New England, then will tour the Lake States, Tennessee and North Carolina. The itinerary for the other teams will include visits through the East and Middle West, after which they will spend some time on the West Coast.

The initial group of 34 members to arrive for the study program, left for Europe July 13. Preceding their departure a meeting was held in Washington, D. C. at which time an evaluation was made of their plant visits, and a semi-final report prepared.

**Foresters in the News—**Gerald F. Prange, forester of Lancaster, Pa., has been named to the laboratory staff of the Timber Engineering Company. Extensively trained in the fields of wood and forest utilization, Prange's new duties in the Teco laboratory will include glue evaluations, bending of glued treated wood, laminated keel blocks for the Navy and other studies for defense agencies.

Dr. Edward G. Locke, chief of the Forest Utilization Service in the Pacific Northwest Forest and Range Experiment Station, is being transferred from Portland, Oregon to the U. S. Forest Products Laboratory at Madison, Wisconsin to serve as chief of the division of derived products.

Donald E. Rinehart of Marion, Indiana has been appointed forestry agent for the Illinois Central Railroad, filling the vacancy left by John G. Guthrie, who resigned recently to accept the position of chief forester for the Dantzer Lumber Company of Wiggins, Alabama.

Dr. Hilton M. Briggs, dean of the University of Wyoming College of Agriculture and director of its agriculture experiment station, has been named acting director of the Wyoming agricultural extension service. He will succeed Dr. A. E. Bowman, who has retired after 37 years.

**Colgan Leaves NLMA** — R. A. Colgan, Jr., has resigned as executive vice-president of the National Lumber Manufacturers Association to become manager of Shasta Forest, 600,000-acre tract nearing Redding, California, it was announced in early July. Colgan had been with NLMA since 1945, having previously managed timber operations in California for the Diamond Match Company.

Harry T. Kendall, board chairman of Weyerhaeuser Sales Company, has temporarily taken over Colgan's NLMA post, pending selection of a successor.

### Governors Hold "Inland America" Parley

A Governors' Conference of officials and representatives from 15 states which make up the Missouri Valley and Great Lakes region, known as "Inland America," was held June 17 and 18 at Omaha, Nebraska under the sponsorship of Governor Mennen G. Williams of Michigan and Val Peterson of Nebraska. Stated purpose was to obtain facts from men best qualified concerning the resource problems in these 15 "Inland America" states and to form a governors' organization to work out a plan for inter-regional cooperation.

The two-day session, attended by 285, dealt chiefly with two proposed projects, the St. Lawrence Seaway and the Missouri River Valley development. Prominent among the speakers were Secretary of the Interior Oscar L. Chapman, Secretary of the Army Frank C. Pace, Major General Lewis A. Pick, chief of the Army Engineers, H. Chapman Rose, counsel for Hanna Coal Company of Cleveland, J. T. Sanders, counsel of the National Grange and James B. Carey, secretary-treasurer of the UAW-CIO.

All speakers advanced well planned arguments in favor of the St. Lawrence Seaway. This project has been much in the news recently, with factions pro and con becoming increasingly vociferous in support of their views. Those attending the meeting were predominantly of the pro faction, although there was some sentiment that the agenda strayed somewhat from its purported purpose.

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The American Forestry Association believes that the Muskingum project is a sound solution to America's problems of flood control and watershed management. It believes that this type of project can be developed on many watersheds of the nation. To encourage a further study of the Ohio project with a view to its application in other states and communities, The American Forestry Association is proud to present "The Muskingum Story."

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# Editorial

## SOIL, MAN AND THE GOSPEL

"It has long been the dream of the nation's top conservation crusaders, men like the late E. Sydney Stephens, to see the conservation movement entrenched in the minds of men as it is entrenched in the roots of the soil," says a recent editorial in the *Columbia Missourian*. "At present, the Bible College and the College of Agriculture (of the University of Missouri) are engaged in a joint task which may prove of great lasting value. For they are teaching ministers to go among the farmers preaching of the gospel and of the soil. Theirs is the task of not only saving man spiritually but also physically."

The above words inspired an editorial reaction from Dan Sauls in the *Missouri Conservationist* (June issue) to which the only suitable comment is: Amen. He says, in part:

"Editorial writers approach certain words very gingerly; among them is the simple little term *God*. Most Americans—that is, most people living in the United States—tend to cringe away from that word, to act as though things spiritual are somewhat unmentionable. Such a situation probably is unhealthy and morbid, but for the purpose of this little piece the word 'religion' fits well and is less likely to disturb materialists.

"The point to be made is that conservation, in itself, has many of the attributes of religion: a belief in the future, a conscious striving toward a better way of life, a belief in good and evil, a body of doctrine, a new awareness. Conservation has, indeed, its disciples and missionaries, dramatic conversions to faith, and its millions who pay lip service only—and then at stated, established periods.

"All this may be interesting as speculation, but it is hardly productive. More to the point is the definite action being taken by religion itself in facing up to the conservation problems of Missouri. 'The Bible College,' says the *Missourian*, 'observed the dire need for ministers who could talk the farmer's language and at the same time offer more than spiritual help. It answered the challenge by launching its present rural ministry program.

"And the program immediately paid dividends. Even before these young ministers were graduated they took rural communities by the hand, rebuilt the crumbling churches, and administered first aid

to the sick soil. These young men were listened to because their sermons made practical sense, for they said the soul of man is inseparably linked with the soil. What is good for the soil is good for the soul.'

"Perhaps all of us in the conservation field have been dodging the issue a bit, pretending that in measuring the game harvest or estimating the crop yield we were too busy to watch the sunset. Probably the angler has failed to count the miracle of redbud among the blessings of a fishing trip, or has neglected to mention the solace of starlight on the gravel bar. But these things are manifestations of—shall we say—religion."

All this harks back to an article by Lloyd E. Partain, *Conservation in the Pulpit*, which appeared in the October, 1949 issue of *American Forests*. Much of the foregoing philosophy is to be found in that earlier thought-provoking and sobering article. Presented, too, was yet another analogy which is as pertinent today as it was nearly two years ago—that too often, in our attempts to cope with worldwide problems of individual freedom and oppression, which in Communist regimes have all too frequently resulted in anti-religious edicts, we lose sight of the fact that in most cases food, or the lack of it, is the seat of the issue. The rural church must do more about this problem, one which constitutes the greatest portion of world unrest today.

Responsibilities of the rural church in our national economy and welfare are legion. Community activities revolving around the church and its program must be designed to serve the moral, spiritual and social needs of all the people within a sphere of reasonable influence. The rural community remains the most fruitful source of leaders in the kind of society, the free enterprise economy and the democratic form of government we strive to protect and preserve. The place of the rural church and the rural minister in this pattern is more than evident.

A noted horticulturist and author, Liberty Hyde Bailey, once stated that a farmer to be a good farmer must be a religious man. A person close to the land is close to his Creator and is thus admirably suited to form a partnership with the down-to-earth and understanding preacher of the Lord's word. This movement which holds so much promise in Missouri cannot spread too quickly to the four corners of the universe.

# SELECTED BOOKS ON FORESTRY AND RELATED FIELDS OF CONSERVATION

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A Natural History of Trees of Eastern & Central North America—Peattie .....	5.00
Handbook of the Trees of the Northern States and Canada—Hough .....	5.50
Maintenance of Shade and Ornamental Trees— Pirone .....	6.50
The Arboreta and Botanical Gardens of North America—Wyman .....	1.50
The Home Book of Trees and Shrubs—Levison .....	10.00
The Trees of Pennsylvania—Crimm .....	5.00
Tree Trails and Hobbies—Cater .....	3.50
Trees—Yearbook of Agriculture—1949—U.S.D.A. ....	2.00
What's That Tree—Appleton .....	.25

## GENERAL FORESTRY

An Introduction to American Forestry—Allen .....	\$ 4.00
Bernard Eduard Fernow—A Story of North Ameri- can Forestry—Rodgers, III .....	7.50
Fifty Years of Forestry in the U.S.A.—Winters .....	4.00
Forests and Men—Greeley .....	3.00
Indian Forest and Range—Kinney .....	4.50

## FOREST MANAGEMENT

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The Management of Farm Woodlands—Guise .....	4.00

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Forest Mensuration—Bruce & Schumacher .....	\$ 5.00
Forest Valuation—Chapman & Meyer .....	6.00

## WOOD—ITS MANUFACTURE AND USE

A Concise Encyclopedia of World Timbers— Titmuss .....	\$ 4.75
Farm Wood Crops—Preston .....	3.75
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Textbook of Wood Technology—Brown, Panchin & Forsyth .....	6.00
The Coming Age of Wood—Glesinger .....	3.50
The Mechanical Properties of Wood—Wangaard .....	6.00

## PLANTING OF TREES AND FORESTS

Plant Buyers Guide—Steffek .....	\$ 7.50
Principles of Nursery Management—Duruz .....	3.50
Propagation of Trees, Shrubs and Conifers—Sheat ..	7.50
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Field Book of Nature Activities—Hillecourt .....	\$ 3.95
How to Live in the Woods—Halsted .....	2.75

Our Eastern Playgrounds—A guide to the National and State Parks and Forests of our Eastern Seaboard—Merrill .....	\$ 3.75
The Book of Nature Hobbies—Pettit .....	3.50

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A Field Guide to the Birds—Peterson .....	\$ 3.50
An Introduction to Birds—Kieran .....	2.50
Audubon's Birds of America—Griseom .....	2.95
Birds of Prey of Northeastern North America— Hausman .....	3.75
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Northwest Angling—Bradner .....	5.00
Over Desert Neighbors—Jaeger .....	5.00
The Fisherman's Encyclopedia—Gabrielson & La- monte .....	12.50
The Land and Wildlife—Graham .....	4.00
The Saga of the Waterfowl—Bovey .....	5.00

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American Wild Flowers—Moldenke .....	\$ 6.95
American Wild Flowers—The Illustrated Encyclo- pedia of—Hausman .....	2.49
How to Landscape Your Grounds—Johnson .....	3.50
Shrubs and Vines for American Gardens—Wyman .....	7.50
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American Resources—Whitaker & Ackerman .....	\$ 6.75
America's New Frontier—The Mountain West— Garnsey .....	3.50
Big Hugh—the Father of Soil Conservation—Brink .....	2.75
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# Mechanical soldiers need good shoes, too!

THESE are days of grave concerns . . . of conservation and mobilization for strengthening the free world's defense—for the survival of our economy—for the continuance of the development and utilization of our commercially valuable timber for general building and construction programs—for the keeping of every home-front machine in condition to stay on the job until its replacement again becomes a normal procedure.

That includes *your* equipment and emphasizes *your* responsibilities. To benefit fully from the productive life that has been built into your "Caterpillar" equipment, you must be alert to its needs as time and hard usage take their toll in wear and depreciation. For instance:

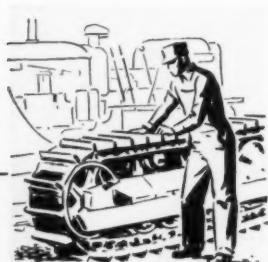
#### *How are your "Caterpillar" track shoes?*

Tough as they are, they can't battle rocks, shale, jolts and grinds forever. Growing shortages in the premium steels that go into them may make early replacements difficult—and extra care of track parts something to think about.

CATERPILLAR, PEORIA, ILLINOIS



DO  
THIS  
NOW



**YOU'RE THE DOCTOR.** Check those sprockets, grouzers, rollers, idlers, pins, links and bushings. Proper track adjustment minimizes wear. Sprockets may need switching from side to side, and pins and bushings need turning, to provide new wearing surfaces. Shoes serve longer if you have worn grouzers built up before excessive wear occurs.

*Reread your Operator's Instruction Book.* Anticipate your future parts requirements. Take the facts to your "Caterpillar" dealer. His modern facilities and skilled servicemen are at your disposal. He can rebuild many parts to keep your machines on the job. Their added life will repay the reconditioning cost over and over.

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